

TRAINING PROGRAM FOR LIGHT VEHICLES

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TRAINING PROGRAM FOR LIGHT VEHICLES

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PREFACE

This training circular (TC) provides a training program for the wheeled vehicle operator of light vehicles (2 1/2 tons or less) in accordance with AR 600-55. It provides standardized training and testing in the operation, maintenance, and safety of light vehicles. It can be used to train drivers of tactical or commercially designed vehicles. It stresses hands-on training with minimal classroom instruction, but it does not include any theater-unique requirements.

Instructions are written in general terms because this TC includes driver tasks for several vehicles. For this reason, the appropriate vehicle operator's manual must be used along with this training circular.

During the development of this TC, it was assumed that each driver candidate would have a state driver's license and some past driving experience. Less experienced soldiers will require additional subjects and time to train to these standards.

To provide effective training, each instructor should ensure his operators are trained and tested to the standards contained in this TC. Any deviation from the successful completion of these basic standards will only lessen the soldiers' overall driving effectiveness.

This training program offers some alternatives for the commander. Chapter 5 includes additional subjects to allow the flexibility to add subjects based on the mission of the unit.

Graduates of this training program (licensed drivers) should be supervised until they have gained the experience to operate safely. They should not be placed in situations that may be above their skill level. Periodically, the supervisor should ride with each driver to observe safe operating procedures and to determine the need for additional training.

The proponent of this publication is the US Army Transportation School. Submit changes for improving this publication on DA Form 2028 (Recommended Changes to Publications and Blank Forms) and forward it to Commandant, US Army Transportation School, ATSP-TDX, Fort Eustis, Virginia 23604-5001.

Unless this publication states otherwise, masculine nouns and pronouns do not refer exclusively to men.

CHAPTER 1

RISK MANAGEMENT

1-1. BACKGROUND. Leaders at all levels must develop techniques that will save resources. Because the Army must be prepared to operate worldwide, the training mission has become increasingly demanding, and so have the risks inherent in that mission. This increase in risks requires that leaders minimize or balance risks with essential mission needs.

1-2. DEFINITION. Risk can be defined as the possibility of a loss. The loss can be death, injury, property damage, or mission failure. Risk management is the identification of risks associated with a particular operation and the requirement to weigh these risks against the overall training value to be gained. There are three risk management basics:

- a. Accept no unnecessary risk.
- b. Accept necessary risks that produce a net Army benefit.
- c. Make risk decisions at the proper command level.

1-3. RISK MANAGEMENT PROCESS. The risk management process uses the following approach:

- a. Detect hazards and associated risks. Look for risks in each phase of the training or operation.
- b. Assess the risk. Ask these questions:
 - What is the likelihood of a mishap?
 - What degree of injury or equipment damage is possible?

NOTE: A low likelihood of happening and a high probability of minor injury equals low risk. A low likelihood of happening and a high probability of a fatality equals high risk.

- c. Develop risk control alternates and make risk decisions. If the risk cannot be eliminated, then it must be controlled without sacrificing essential mission requirements. Some risks can be controlled by modifying task standards, operational procedures, training requirements, maintenance standards, and so forth. Decisions take several forms:
 - Selecting from available controls.
 - Trading off mission elements against risk controls.
 - Determining if controls reduce the risk to an acceptable level considering the mission benefits.

d. Implement the risk control measures. Procedures for controlling risks must be integrated into plans, orders, standing operating procedures (SOPs), and training. They must also be integrated into other means to ensure that the risk reduction measures will be used during actual operations.

e. Supervise the operations. Leaders use the same supervision techniques such as on-the-scene, spot-checks, and performance indicators to monitor risk controls that they use to monitor overall operations.

f. Evaluate the results. Include the effectiveness of risk management controls in the assessment of operational results.

1-4. RISK ASSESSMENT ELEMENTS. There are no hard and fast rules for assessing risks. Different training tasks involve different elements that can affect training safety. However, seven elements are central to the safe completion of most driver training tasks:

- Soldier qualification
- Vehicle type
- Weather
- Terrain
- Supervision
- Equipment
- Time of day

Using matrices that assign a numerical value to each of the elements is one way to quickly gain an appreciation of the overall risks. The following matrices offer examples of risk assessments for each of the seven elements common to driver training missions.

NOTE: These are arbitrarily weighted factors; modify them based on your particular mission and unit.

a. Soldier qualification is measured by comparing the level of task difficulty to the soldier's military driving experience.

SOLDIER QUALIFICATION RISK VALUE			
DRIVING EXPERIENCE			
TASK	LICENSED OVER 1 YEAR	LICENSED UNDER 1 YEAR	UNLICENSED
COMPLEX	3	4	5
ROUTINE	2	3	4
SIMPLE	1	2	3

EXAMPLE: Unlicensed drivers learning to drive a five-speed manual transmission in an M35A2 would receive a risk value of 5.

b. Vehicle type is measured by comparing the vehicle configuration to the location of the training tasks.

VEHICLE TYPE RISK VALUE			
VEHICLE CONFIGURATION			
LOCATION OF TRAINING	LIGHT TRUCKS	MEDIUM TRUCKS	TRACTOR/SEMITRAILERS
ROAD	3	4	5
TRAINING AREA	2	3	4
MOTOR POOL	1	1	1

EXAMPLE: Driving an M35A2 over the road would have a risk value of 3.

c. Weather is measured by comparing temperature with moisture/ visibility conditions.

WEATHER RISK VALUE			
VISIBILITY/MOISTURE			
TEMPERATURE FAHRENHEIT	CLEAR DRY	FOG/HUMID/ DRIZZLE	DUST/RAIN/ SNOW/ICE
0-31° or 90°+	3	4	5
32°-59°	2	3	5
60°-89°	1	3	5

EXAMPLE: A task conducted outdoors at a temperature of 20°F with snow or ice would receive a risk value of 5.

d. Terrain is measured by comparing the physical features of the land with the road network that exists in the area.

TERRAIN RISK VALUE			
TRAFFICABILITY			
TYPE OF TERRAIN	STREETS/ HIGHWAYS	CONGESTED STREETS/HIGHWAYS	TRAILS CROSS-COUNTRY
JUNGLE/MOUNTAINS/ DESERTS	3	4	5
HILLS	2	4	4
FLAT/ROLLING	1	3	3

EXAMPLE: Driver training conducted at Fort Bragg over trails would be assessed a value of 3.

e. Supervision is measured by comparing the instructor to student ratio to the location of the training tasks.

SUPERVISION RISK VALUE			
INSTRUCTOR TO STUDENT RATIO	CLASSROOM	TRAINING AREA/ MOTOR POOL	ON/OFF ROAD
NOT OBSERVING	3	4	5
OBSERVING	2	3	4
IN VEHICLE	1	2	3

EXAMPLE: An instructor to student ratio of 1:8 for on-road driving would be assessed a value of 5.

f. Equipment is measured by comparing the age of the equipment to the maintenance level.

EQUIPMENT RISK VALUE			
EQUIPMENT AGE	C-1	C-2	C-3
OLD	3	4	5
AVERAGE	2	3	4
NEW	1	2	3

EXAMPLE: A 20-year-old M35A2, maintained as C-2, would be assessed a value of 4.

g. Time of day is measured by comparing the level of light to familiarity with the route.

TIME OF DAY RISK VALUE			
ROUTE FAMILIARITY	DAY	DAWN/DUSK	NIGHT
NEVER DRIVEN ROUTE	3	4	5
DRIVEN ROUTE 1-3 TIMES	2	3	4
FAMILIAR ROUTE	1	2	3

EXAMPLE: A driving task over a familiar route that starts during the day but ends at dusk would have a risk value of 2.

h. After assessing all the risks, total the value and apply it to a quick-reference gauge.

QUICK REFERENCE GAUGE			
RISK LEVEL VALUES	LOW RISK	CAUTION	HIGH RISK
	7-12	13-18	19-35

When two or more elements are assigned a risk value of 5, consider the overall rating as high risk. (A risk value of 5 signifies hazards inherent in that task and should be analyzed for ways to reduce or eliminate the danger.)

1-5. DECISION AID. The level of the decision-maker should correspond to the level of the risk. The greater the risk, the more senior the final decision-maker should be. This matrix is a proposed decision aid to assist in determining the leadership decision-making level.

DECISION AID		
RISK	POINTS	DECISION LEVEL
LOW	7-12	SENIOR INSTRUCTOR
CAUTION	13-18	COMPANY COMMANDER
HIGH	19-35	BATTALION COMMANDER

- a. Operations with a value of 7 to 12 are low risk, and normal standing operating procedures apply.
- b. A value of 13 to 18 is a caution area. Complete unit command involvement is warranted. Give a caution rating special consideration if one or two elements have significantly raised the overall risk level. For example, a risk value of 4 in the weather element category indicates the soldiers are more susceptible to cold injuries and require closer supervision. If the risk level cannot be reduced, the company commander must approve the training mission.
- c. Operations with a value of 19 to 35 or with two or more areas assigned a risk value of 5 are high risk. Procedures in b above apply. If the risk level cannot be lowered, the battalion commander must approve the mission.

1-6. RISK CONTROL ALTERNATIVES. The following options can help control risk:

- a. Eliminate the hazard totally, if possible, or substitute a less hazardous alternative.
- b. Control the hazard by reducing the magnitude of the hazard or provide barriers.
- c. Modify operational procedures to minimize risk exposure consistent with mission needs.
- d. Train personnel to use effective hazard avoidance actions.
- e. Motivate personnel to use effective hazard avoidance actions.

1-7. RISK CONTROL MEASURES. Leaders must monitor the training to ensure that risk control measures are followed. Never underestimate the ability of subordinates to sidetrack a decision they do not understand or support. You will also need to monitor the impact of risk reduction procedures when they are implemented to verify that they really are a good idea. This is especially true of new and untested procedures.

1-8. PAYOFFS. Risk management permits realistic training scenarios to be performed without a high potential cost in accidents. It also minimizes personnel and materiel losses in day-to-day training activities.

SAMPLE RISK ASSESSMENT WORK SHEET

TRAINING TASK: _____

POINTS:

_____ 1. SOLDIER QUALIFICATION

TASK	LICENSED OVER 1 YEAR	LICENSED UNDER 1 YEAR	UNLICENSED
COMPLEX	3	4	5
ROUTINE	2	3	4
SIMPLE	1	2	3

_____ 2. VEHICLE TYPE

LOCATION OF TRAINING	LIGHT TRUCKS	MEDIUM TRUCKS	TRACTOR/ SEMITRAILERS
ROAD	3	4	5
TRAINING AREA	2	3	4
MOTOR POOL	1	1	1

_____ 3. WEATHER

TEMPERATURE FAHRENHEIT	CLEAR/ DRY	FOG/HUMID/ DRIZZLE	DUST/RAIN/ SNOW/ICE
0-31° OR 90°+	3	4	5
32°-59°	2	3	5
60°-89°	1	3	5

_____ 4. TERRAIN

TYPE OF TERRAIN	STREETS/ HIGHWAYS	CONGESTED STREETS/HIGHWAYS	TRAILS/ CROSS-COUNTRY
JUNGLE/MOUNTAINS/ DESERTS	3	4	5
HILLS	2	4	4
FLAT/ROLLING	1	3	3

_____ 5. SUPERVISION

INSTRUCTOR TO STUDENT RATIO	CLASSROOM	TRAINING AREA/ MOTOR POOL	ON/OFF ROAD
NOT OBSERVING	3	4	5
OBSERVING	2	3	4
IN VEHICLE	1	2	3

_____ 6. EQUIPMENT

EQUIPMENT AGE	C-1	C-2	C-3
OLD	3	4	5
AVERAGE	2	3	4
NEW	1	2	3

_____ 7. TIME OF DAY

ROUTE FAMILIARITY	DAY	DAWN/DUSK	NIGHT
NEVER DRIVEN ROUTE	3	4	5
DRIVEN ROUTE 1-3 TIMES	2	3	4
FAMILIAR ROUTE	1	2	3

_____ **TOTAL POINTS**

QUICK REFERENCE GAUGE			
RISK LEVEL VALUES	LOW RISK 7-12	CAUTION 13-18	HIGH RISK 19-35

DECISION AID		
RISK	POINTS	DECISION LEVEL
LOW	7-12	SENIOR INSTRUCTOR
CAUTION	13-18	COMPANY COMMANDER
HIGH	19-35	BATTALION COMMANDER

APPROVED BY: _____ **DATE:** _____

CHAPTER 2
INSTRUCTIONAL AIDS

1. Student Requirements:

a. Vehicles per student: One wheeled vehicle for every three students.

b. Forms per student:

SF 91.

DD Form 518.

DD Form 1970.

DA Form 2404.

DA Form 2408-14.

c. Publications per student:

Appropriate vehicle operator's manual.

Appropriate vehicle lubrication order.

Appropriate trailer operator's manual.

d. Nonstandard items: 40 empty petroleum, oils, and lubricants (POL) drums, traffic cones, or locally fabricated standards.

2. Instructor Requirements:

One each of the above forms.

One each of the above publications.

AR 600-55.

DA Pamphlet 738-750.

FM 21-60.

FM 21-305.

FM 55-312.

All host-nation or local directives and regulations.

3. Training Facilities:

TC 21-305-7

Classroom.

Motor pool.

Training area(s).

Suitable roadnet for driver training.

4. Training Aids and Devices:

Overhead projector.

Projection screen.

5. Optional Training Aids and Devices:

Television monitor.

Videocassette player.

TVT 8-210, PIN: 709704DA, "Defense Driving Course – Coaching the Emergency Vehicle Operator - Ambulance."

AFV 20-1, PIN: 707998DA, "Failure to Buckle Up."

AFV 20-3, PIN: 708004DA, "Fatal HMMWV Collision."

AFV 20-4, PIN: 708407DA, "Death Sleep."

AFV 20-5, PIN: 708402DA, "Unlicensed, Untrained Drivers."

CHAPTER 3

SAMPLE TRAINING SCHEDULE

<u>WHEN</u>	<u>WHAT</u>	<u>WHERE</u>	<u>TASK NUMBER</u>
DAY 1			
0730-0830	Use Technical Manuals and Lubrication Orders and Make Entries on DA Form 2404	Classroom	551-721-1352
0830-0930	Prepare DD Form 1970	Classroom	551-721-1352
0930-1130	Report an Accident	Classroom	551-721-1388
1130-1230	Lunch		
1230-1330	Know Safety Rules and Procedures for Driving Under Adverse Road Conditions	Classroom	551-721-1361
1330-1430	Identify Controls, Instruments, Indicators, and Equipment	Motor Pool	551-721-1352
1430-1630	Perform Operator PMCS	Motor Pool	551-721-1352 551-721-1353
DAY 2			
0730-0830	Drive Vehicle with Automatic or Manual Transmission	Motor Pool	551-721-1365 551-721-1366
0830-0900	Perform Before-Operation PMCS	Motor Pool	551-721-1352
0900-1130	Drive Vehicle with Automatic or Manual Transmission	Training Area	551-721-1365 551-721-1366
1130-1230	Lunch		
1230-1600	Drive Vehicle with Automatic or Manual Transmission	Training Area/ Driver Training Route	551-721-1365 551-721-1366
1600-1630	Perform After-Operation PMCS	Motor Pool	551-721-1352
DAY 3			
0730-0800	Perform Before-Operation PMCS	Motor Pool	551-721-1352
0800-1130	Drive Vehicle with Automatic or Manual Transmission	Training Area/ Driver Training Route	551-721-1365 551-721-1366
1130-1230	Lunch		
1230-1330	Drive Vehicle on the Road	Classroom	551-721-1365 551-721-1366
1330-1600	Drive Vehicle on the Road	Driver Training Route	551-721-1365 551-721-1366
1600-1630	Perform After-Operation PMCS	Motor Pool	551-721-1352

<u>WHEN</u>	<u>WHAT</u>	<u>WHERE</u>	<u>TASK NUMBER</u>
DAY 4			
0730-0800	Perform Before-Operation PMCS	Motor Pool	551-721-1352
0800-1130	Drive Vehicle on the Road	Driver Training Route	551-721-1365 551-721-1366
1130-1230	Lunch		
1330-1600	Drive Vehicle on the Road	Driver Training Route	551-721-1365 551-721-1366
1600-1630	Perform After-Operation PMCS	Motor Pool	551-721-1352
DAY 5			
0730-0800	Perform Before-Operation PMCS	Motor Pool	551-721-1352
0800-1130	Back and Park a Vehicle	Training Area	551-721-1365 551-721-1366
1900-1930	Perform Before-Operation PMCS	Motor Pool	551-721-1352
1930-2330	Drive Vehicle at Night	Motor Pool/Driver Training Route	551-721-1365 551-721-1366
2330-2400	Perform After-Operation PMCS	Motor Pool	551-721-1352
DAY 6			
1230-1630	End of Course Comprehensive Test and Perform After-Operation PMCS	Classroom/ Motor Pool/ Test Route Motor Pool	All Tasks 551-721-1352

CHAPTER 4

LESSON OUTLINES

LESSON TITLE: USE TECHNICAL MANUALS (TMs) AND LUBRICATION ORDERS (LOs) AND MAKE ENTRIES ON DA FORM 2404

TASK NUMBER: 551-721-1352 (Perform Vehicle Preventive Maintenance Checks and Services [PMCS])

A. TRAINING OBJECTIVE.

TASK: Use the appropriate vehicle TM/LO and make operator entries on DA Form 2404 (Equipment Inspection and Maintenance Worksheet).

CONDITIONS Given instruction, DA Form 2404, a practical exercise, vehicle operator's manual (TM), and LO.

STANDARD: Locate information in the TM/LO and make the required operator entries on DA Form 2404 in correct sequence in accordance with DA Pamphlet 738-750. Each student has 15 minutes to complete the practical exercise and will be graded on a Go/No-Go basis.

B. INTERMEDIATE TRAINING.

Intermediate Training Objective 1

TASK: Use the appropriate vehicle TM and LO.

CONDITIONS: Given instruction, vehicle operator's manual, LO, and a practical exercise in a classroom environment.

STANDARD: Answer the questions in the practical exercise by locating information in the TM/LO. Each student will be graded on a Go/No-Go basis.

Intermediate Training Objective 2

TASK: Document a no-fault situation on DA Form 2404.

CONDITIONS: Given instruction, a DA Form 2404, vehicle operator's manual, and a practical exercise in a classroom environment.

STANDARD: Fill out a no-fault situation on DA Form 2404 in the correct sequence in accordance with DA Pamphlet 738-750. Each

student will be graded on a Go/No-Go basis.

Intermediate Training Objective 3

- TASK:** Document a fault situation on DA Form 2404.
- CONDITIONS:** Given instruction, a DA Form 2404, vehicle operator's manual, and a practical exercise in a classroom environment.
- STANDARD:** Fill out a fault situation on DA Form 2404 in the correct sequence, in accordance with DA Pamphlet 738-750. Each student will be graded on a Go/No-Go basis.

C. ADMINISTRATIVE INSTRUCTIONS.

1. Training time: As scheduled.
2. Training location: Scheduled classroom.
3. Training type: Conference and practical exercise.
4. Students: Scheduled personnel.
5. Principal and assistant instructors required: One primary instructor for the conference and one assistant instructor for each 20 students for the practical exercise.
6. Training aids and equipment: Overhead projector, transparency, screen, appropriate vehicle operator's manual (one per student), appropriate vehicle lubrication order (one per student), DA Form 2404 (four per student), and a practical exercise situation sheet (one per student).
7. References: DA Pamphlet 738-750 and appropriate vehicle operator's manual and lubrication order.

D. SEQUENCE OF ACTIVITY

NOTE: Prior to class arrival, ensure each student desk or table has an operator's manual, lubrication order, and two DA Forms 2404.

1. Introduction:
 - a. Interest device.
 - b. Tie-in.
 - c. Lesson objective (paragraph A).

d. Procedures:

- (1) Explanation.
- (2) Summary.
- (3) Practical exercise.

2. Explanation and demonstration:

a. Proper technique for using the operator's manual (TM):

- (1) Front cover table of contents and thumb tab subject index, if applicable.
- (2) Warning summary.
- (3) Table of contents (chapters and appendixes), if applicable.
- (4) Operating instructions to include PMCS tables.
- (5) Alphabetical index.

b. Use of the lubrication order:

- (1) Tables and notes.
- (2) Level of maintenance codes.
- (3) Lubrication after shallow or deepwater fording.
- (4) Lubricant abbreviations and intervals.

c. DA Form 2404 no-fault situation:

- (1) Organization.
- (2) Nomenclature and model.
- (3) Registration/serial number/national stock number (NSN).
- (4) Type of inspection (PMCS).
- (5) TM number and TM date.

- (6) Date of inspection (column c).
- (7) Type of inspection (entered in column d when used for concurrent inspections).
- (8) Disposition of DA Form 2404.

d. DA Form 2404 fault situation:

- (1) Deferred maintenance. Check DA Form 2408-14 (Uncorrected Fault Record) for any deferred maintenance before listing any faults on DA Form 2404. Do not list faults that are already listed on DA Form 2404 or DA Form 2408-14.

NOTE: Explain to the students that when a DA Form 2404 has previous no-fault daily annotations and a fault is found, a new form does not have to be initiated. The same form would be used and some of the steps listed below would already be completed.

- (2) Organization.
- (3) Nomenclature and model.
- (4) Registration/serial number/NSN.
- (5) Miles. Round to the nearest mile or kilometer. Put the letter "M" before the number if the reading is miles. Put the letter "K" before the number if the reading is kilometers.
- (6) Hours.
- (7) Date.
- (8) Type of inspection (PMCS).
- (9) TM number and TM date.
- (10) Signature and rank in block 8a.
- (11) TM item number entered in column a. Circle item number if fault makes equipment not mission capable (NMC).
- (12) Status symbol entered in column b.
- (13) Deficiencies or shortcomings entered in column c.
- (14) Disposition of DA Form 2404.

3. Practical exercise: Hand out one practical exercise and two DA Forms 2404 to each student. Students will complete the practical exercise as outlined in paragraph 2 above within 15 minutes.

4. Evaluation: Check each student's practical exercise.

5. Summary:

a. Recap main points.

b. Allow for questions.

c. Clarify questions.

d. Give closing statement.

6. Retraining: No-Gos will be retrained and retested after normal duty hours.

E. SAFETY RESTRICTIONS. None.

F. ADDITIONAL COMMENTS AND INFORMATION. Recommended instructional time is 1 hour (.5 conference and .5 practical exercise).

EQUIPMENT INSPECTION AND MAINTENANCE WORKSHEET									
For use of this form, see DA PAM 738-750 and 738-751; the proponent agency is DCSLOG									
1. ORGANIZATION <i>3d Support Co</i>					2. NOMENCLATURE AND MODEL <i>Trk Util, 3/4T, M1009</i>				
3. REGISTRATION/SERIAL/NSN <i>AZ241B</i>		4a. MILES	b. HOURS	c. ROUNDS FIRED	d. HOT STARTS	5. DATE	6. TYPE INSPECTION <i>PMCS</i>		
7. APPLICABLE REFERENCE									
TM NUMBER <i>9-2320-289-10 w/c 1</i>			TM DATE <i>4 Jul 86</i>		TM NUMBER			TM DATE	
COLUMN a - Enter TM item number. COLUMN b - Enter the applicable condition status symbol. COLUMN c - Enter deficiencies and shortcomings.					COLUMN d - Show corrective action for deficiency or shortcoming listed in Column c. COLUMN e - Individual ascertaining completed corrective action initial in this column.				
STATUS SYMBOLS									
"X" - Indicates a deficiency in the equipment that places it in an inoperable status. CIRCLED "X" - Indicates a deficiency, however, the equipment may be operated under specific limitations as directed by higher authority or as prescribed locally, until corrective action can be accomplished. HORIZONTAL DASH "-" - Indicates that a required inspection, component replacement, maintenance operation check, or test flight is due but has not been accomplished, or an overdue MWO has not been accomplished.					DIAGONAL "/" - Indicates a material defect other than a deficiency which must be corrected to increase efficiency or to make the item completely serviceable. LAST NAME INITIAL IN BLACK, BLUE-BLACK INK, OR PENCIL - Indicates that a completely satisfactory condition exists. FOR AIRCRAFT - Status symbols will be recorded in red.				
ALL INSPECTIONS AND EQUIPMENT CONDITIONS RECORDED ON THIS FORM HAVE BEEN DETERMINED IN ACCORDANCE WITH DIAGNOSTIC PROCEDURES AND STANDARDS IN THE TM CITED HEREON.									
8a. SIGNATURE (Person(s) performing inspection)			8b. TIME	9a. SIGNATURE (Maintenance Supervisor)			9b. TIME	10. MANHOURS REQUIRED	
TM ITEM NO. <i>a</i>	STATUS <i>b</i>	DEFICIENCIES AND SHORTCOMINGS <i>c</i>			CORRECTIVE ACTION <i>d</i>			INITIAL WHEN CORRECTED <i>e</i>	
		<i>8 Jan 92</i>						<i>J. R.</i>	
		<i>9 Jan 92</i>						<i>J. R.</i>	
		<i>10 Jan 92</i>			<i>w</i>			<i>J. R.</i>	
		<i>13 Jan 92</i>						<i>J. R.</i>	
		<i>14 Jan 92</i>						<i>J. R.</i>	
		<i>15 Jan 92</i>						<i>J. R.</i>	
		<i>16 Jan 92</i>						<i>J. R.</i>	
		<i>17 Jan 92</i>			<i>w/m</i>			<i>J. R.</i>	

DA FORM 2404, APR 79

Replaces edition of 1 Jan 64, which will be used

USAPPC V1.10

NOTE: This is a sample DA Form 2404 used for operator/crew PMCS when no faults are found. All entries are to be completed in pencil. This sample can be used to make a transparency for overhead projection system.

EQUIPMENT INSPECTION AND MAINTENANCE WORKSHEET									
For use of this form, see DA PAM 738-750 and 738-751; the proponent agency is DCSLOG									
1. ORGANIZATION <i>3d Support Co</i>					2. NOMENCLATURE AND MODEL <i>Trk Util, 3/4 T, M1009</i>				
3. REGISTRATION/SERIAL/NSN <i>AZ241B</i>		4a. MILES <i>M45201</i>	b. HOURS	c. ROUNDS FIRED	d. HOT STARTS	5. DATE <i>7 Jan 92</i>	6. TYPE INSPECTION <i>PMCS</i>		
7. APPLICABLE REFERENCE									
TM NUMBER <i>9-2320-289-10 w/c1</i>			TM DATE <i>4 Jul 86</i>		TM NUMBER			TM DATE	
COLUMN a - Enter TM item number. COLUMN b - Enter the applicable condition status symbol. COLUMN c - Enter deficiencies and shortcomings.					COLUMN d - Show corrective action for deficiency or shortcoming listed in Column c. COLUMN e - Individual ascertaining completed corrective action initial in this column.				
STATUS SYMBOLS									
"X" - Indicates a deficiency in the equipment that places it in an inoperable status. CIRCLED "X" - Indicates a deficiency, however, the equipment may be operated under specific limitations as directed by higher authority or as prescribed locally, until corrective action can be accomplished. HORIZONTAL DASH "-" - Indicates that a required inspection, component replacement, maintenance operation check, or test flight is due but has not been accomplished, or an overdue MWO has not been accomplished.					DIAGONAL "/" - Indicates a material defect other than a deficiency which must be corrected to increase efficiency or to make the item completely serviceable. LAST NAME INITIAL IN BLACK, BLUE-BLACK INK, OR PENCIL - Indicates that a completely satisfactory condition exists. FOR AIRCRAFT - Status symbols will be recorded in red.				
ALL INSPECTIONS AND EQUIPMENT CONDITIONS RECORDED ON THIS FORM HAVE BEEN DETERMINED IN ACCORDANCE WITH DIAGNOSTIC PROCEDURES AND STANDARDS IN THE TM CITED HEREON.									
8a. SIGNATURE (Person(s) performing inspection) <i>John B. Roe, PFC</i>			8b. TIME	9a. SIGNATURE (Maintenance Supervisor) <i>Joe Jones, SSG</i>			9b. TIME	10. MANHOURS REQUIRED	
TM ITEM NO. <i>a</i>	STATUS <i>b</i>	DEFICIENCIES AND SHORTCOMINGS <i>c</i>			CORRECTIVE ACTION <i>d</i>			INITIAL WHEN CORRECTED <i>e</i>	
		<i>2 Jan 92</i>						<i>J. R.</i>	
		<i>3 Jan 92</i>			<i>w</i>			<i>J. R.</i>	
		<i>5 Jan 92</i>						<i>J. R.</i>	
		<i>6 Jan 92</i>						<i>J. R.</i>	
<i>1.</i>	<i>/</i>	<i>Left taillight doesn't work</i>							
<i>(4)</i>	<i>X</i>	<i>Driver's seat belt missing</i>							

NOTE: This is a sample DA Form 2404 used for operator/crew PMCS when faults are found. All entries are to be completed in pencil. This sample can be used to make a transparency for overhead projection system.

PRACTICAL EXERCISE

LESSON TITLE: USE TECHNICAL MANUALS (TM)s AND LUBRICATION ORDERS (LOs) AND MAKE ENTRIES ON DA FORM 2404

NAME _____ RANK _____ DATE _____

To complete this practical exercise, you will need the appropriate operator's manual (TM), lubrication order, two blank DA Forms 2404, and a pencil. You have 15 minutes to complete this practical exercise.

FIRST REQUIREMENT

Using the technical manual and lubrication order, answer the following questions by writing your answer in the space provided after each question.

1. At what interval does the operator check the transmission lubricant level?
2. At what interval does the operator check the master cylinder level?
3. In what chapter and section of the operator's manual would you find information on starting the vehicle?
4. At what interval is the battery electrolyte level checked?
5. What is the gross vehicle weight rating (GVWR) of this vehicle?

SECOND REQUIREMENT

From the following information, make the required operator entries on DA Form 2404.

You are assigned to the 223d Service Company as the operator of a _____ (instructor fills in type and model of vehicle) with a registration number of AG24BX.

- a. On 6 Jan 92, you perform a daily PMCS and find no faults.
- b. On 7 Jan 92, you perform a daily PMCS and again find no faults.
- c. On 8 Jan 92, you perform a daily PMCS and while checking your vehicle parking brake, you find the parking brake does not hold your vehicle. Your odometer reading is 2,845 miles.
- d. On 9 Jan 92, you perform a daily PMCS and you find the parking brake has been repaired. No other faults are discovered.

e. On 10 Jan 92, you perform a weekly and monthly PMCS and find no faults.

LESSON TITLE: KNOW SAFETY RULES AND PROCEDURES FOR DRIVING UNDER ADVERSE ROAD CONDITIONS

TASK NUMBER: 551-721-1361 (Drive Cargo Vehicle on Snow/Ice)

A. TRAINING OBJECTIVE.

TASK: Demonstrate knowledge of procedures for driving under adverse conditions (snow, ice, fog, rain, and bleeding tar).

CONDITIONS Given instruction, pen or pencil, and practical exercise.

STANDARD: Answer 7 of 10 questions correctly on the practical exercise within 10 minutes.

B. INTERMEDIATE TRAINING. None.

C. ADMINISTRATIVE INSTRUCTIONS.

1. Training time: As scheduled.
2. Training location: Scheduled classroom.
3. Training type: Conference and practical exercise.
4. Students: Scheduled personnel.
5. Principal and assistant instructors required: One primary instructor for the conference and one assistant instructor for each 20 students for the practical exercise.
6. Training aids and equipment: Overhead projector, transparency, screen, and a practical exercise (one per student).
7. References: FM 21-305 and appropriate vehicle operator's manual.

D. SEQUENCE OF ACTIVITY.

1. Introduction:
 - a. Interest device.
 - b. Tie-in.
 - c. Lesson objective (paragraph A).

d. Procedures:

- (1) Explanation.
- (2) Practical exercise.
- (3) Summary.

2. Explanation: Two major hazards associated in driving during adverse weather conditions are reduced visibility and reduced traction.

a. Countermeasures for driving during periods of reduced visibility:

- (1) Travel at reduced speeds and be prepared to meet sudden changes in road conditions.
- (2) Do not use high beams. Switch to low beams if on high beams.
- (3) Look to the right if blinded by oncoming vehicles.
- (4) Do not overrun the headlights, and stay twice the normal distance from the vehicle ahead.
- (5) Give turn signals sooner.
- (6) Apply brakes sooner, and press the brake pedal lightly to give an early warning that the vehicle will slow or stop.
- (7) Keep the windshield, windows, mirrors, headlights, brake lights, reflectors, and area around the air cleaner intake free of snow and ice. Snow and ice may melt, refreeze, and cause restriction in the air intake system.
- (8) Watch for pedestrians and vehicles pulled over to the side of the road.
- (9) Use caution when weather reduces visibility to near zero. Visibility can be reduced at night in heavy snow, during a downpour of rain, or in dense fog. When this happens, it is unsafe to drive.
 - (a) Exit the highway, stop, and wait until visibility improves before continuing.
 - (b) Do not stop on the shoulder with flashers on. Stopping on shoulders may induce a rear end collision/chain reaction.

b. Reduced traction countermeasures:

- (1) Install tire chains if needed for snow or ice.
- (2) Pump the brakes gradually when stopping a vehicle on snow and ice. (Pumping air brake vehicles may be dangerous. Do not pump the brakes more than three to four times. Allow the air pressure to build back up before reapplying the brakes.) Sudden braking will cause the wheels to lock and the vehicle to slide out of control.
- (3) Place the transmission shift lever and transfer case shift lever (if equipped) in the appropriate driving range to descend/climb steep hills.
- (4) Place the vehicle in motion slowly to prevent the wheels from spinning.
- (5) Press the accelerator pedal slowly when changing speed.
- (6) Keep the accelerator pedal steady after the vehicles reaches the desired speed.
- (7) Turn the vehicle slowly and make gradual steering adjustments when on slippery surfaces.
- (8) Steer the vehicle away from ruts and large snow banks.
- (9) Steer the vehicle straight up and down hills if possible.
- (10) Check for black ice. Black ice is clear and cannot be seen because the road surface is visible through the ice. The ice becomes invisible to the driver. Black ice usually occurs on bridges, beneath underpasses, in dips in the road, in shaded areas, and on lower sides of banked curves.
 - (a) When driving in rain or near freezing temperature, feel for ice along the front of a mirror. If ice is there, it may be on the road surface as well.
 - (b) When in doubt, test surface traction by checking to see that nothing is following your vehicle, slow down, and then apply the brakes gently to see if the vehicle skids.
- (11) Use the following procedures if the rear of the vehicle skids. Skidding and jackknifing are caused by sudden changes in speed or direction. These changes result from over acceleration, over braking, and over steering.
 - (a) Let up on the accelerator pedal.

(b) Steer in the same direction in which the rear of the vehicle is skidding.

(c) When the vehicle is under control, press the brake pedal lightly.

(d) Steer the vehicle on a straight course and slowly press the accelerator pedal.

(12) If the vehicle starts to slide while climbing a hill, do the following:

(a) Let up on the accelerator pedal.

(b) Steer the vehicle in the direction of the slide until the vehicle stops sliding.

(c) Slowly press the accelerator pedal and steer the vehicle on a straight course.

(13) If the vehicle becomes stuck, do the following:

(a) Shovel a clear path ahead of each wheel. Put boards, brush, sand, gravel, or similar material in cleared paths to get better traction.

(b) If additional power is needed to extract the vehicle when mired in snow, place the transmission in the lowest forward gear range and the transfer case (if equipped) in low range. Do not rock the vehicle or spin the wheels.

(c) If the vehicle remains stuck, use a wrecker or another vehicle equipped with a winch to tow or winch the stuck vehicle.

(d) If the vehicle is equipped with a self-recovery winch, it may be used to help free the vehicle.

(14) Drive slowly and test the brakes after driving through slush or water. If the brakes slip, do the following:

(a) Continue to drive slowly.

(b) Apply moderate pressure on the brake pedal to cause slight brake drag.

(c) When the brakes are dry and no longer slip and uneven braking ceases, let up on the brake pedal.

(d) Resume normal driving speed.

(15) When driving during hot weather, adjust your driving for bleeding tar conditions on the roadway. To drive under these conditions--

(a) Frequently scan the roadway ahead.

(b) Identify a black tar area ahead.

(c) Maintain steady speed.

(d) Make no sudden steering maneuvers.

(e) Make no sudden braking maneuvers.

(f) If braking is required, ensure all wheels are on a similar surface.

3. Practical exercise: Hand out one practical exercise to each student. Students will complete the practical exercise within 10 minutes.

4. Evaluation: Check each student's practical exercise.

5. Summary:

a. Recap main points.

b. Allow for questions.

c. Clarify questions.

d. Give closing statement.

6. Retraining: No-Gos will be retrained and retested after normal duty hours.

E. SAFETY RESTRICTIONS. None.

F. ADDITIONAL COMMENTS AND INFORMATION. Recommended instructional time is 1 hour (.5 conference and .5 practical exercise).

PRACTICAL EXERCISE

LESSON TITLE: KNOW SAFETY RULES AND PROCEDURES FOR DRIVING
UNDER ADVERSE ROAD CONDITIONS

NAME _____ RANK _____ DATE _____

To complete this practical exercise, you will need a pen or pencil. You have 10 minutes to complete this practical exercise. To pass this practical exercise, you must correctly answer 7 of the 10 questions.

SECTION I. True/false questions: Read each question carefully and place a T or F on the blank line to the left of each question.

- _____ 1. Even after weather clears, ice, snow, mud, salt, or dirt on your light lenses and reflectors can affect your vision and how well others can see you.
- _____ 2. The only major hazard of driving in adverse weather conditions is reduced traction.
- _____ 3. Releasing the accelerator quickly can cause a skid.
- _____ 4. The area around the air cleaner intake must be kept free of snow and ice.
- _____ 5. Skidding and jackknifing are caused by sudden changes in speed or direction.
- _____ 6. The best advice in regard to a stuck vehicle is to avoid getting stuck.

SECTION II. Multiple choice: Read each question carefully and write the answer which is most correct on the blank line to the left of each question.

- _____ 7. If the vehicle starts to slide while climbing a hill, you would--
- a. Let up on the accelerator pedal.
 - b. Steer the vehicle in the direction of the slide until the vehicle stops.
 - c. Slowly press the accelerator pedal and steer the vehicle on a straight course.
 - d. Do all of the above.

- _____ 8. How should you dry wet brake linings?
- a. Continue to drive at a slow speed with enough pressure on the brake pedal to cause a slight drag on the brakes.
 - b. Pump the brake pedal.
 - c. Pull over and wait 25 to 30 minutes to allow the brakes to dry out.
 - d. Increase speed to allow more air to flow through the brakes.
- _____ 9. For increased traction when driving in snow or on ice, you should--
- a. Steer the vehicle diagonally up hills.
 - b. Install tire chains (all driven wheels).
 - c. Install tire chains (all non-driven wheels).
 - d. Turn the vehicle quickly when on slippery surfaces.
- _____ 10. If your vehicle starts to skid, which should you do?
- a. Step on the brakes and hold the steering wheel straight.
 - b. Nothing.
 - c. Release the accelerator pedal and steer in the direction of the skid.
 - d. Release the gas pedal and steer in the opposite direction of the skid.

LESSON TITLE: IDENTIFY CONTROLS: INSTRUMENTS, INDICATORS, AND EQUIPMENT

TASK NUMBER: 551-721-1352 (Perform Vehicle Preventive Maintenance Checks and Services [PMCS])

A. TRAINING OBJECTIVE.

TASK: Identify controls: instruments, indicators, and equipment.

CONDITIONS Given instruction on the vehicle.

STANDARD: Correctly identify and explain the function of the controls: instruments, indicators, and equipment.

B. INTERMEDIATE TRAINING. None.

C. ADMINISTRATIVE INSTRUCTIONS.

1. Training time: As scheduled.
2. Training location: Motor pool.
3. Training type: Conference.
4. Students: Scheduled personnel.
5. Principal and assistant instructors required: One primary instructor for the conference and one assistant instructor for each three students.
6. Training aids and equipment: One vehicle for each three students. If the class is large, a public address (PA) system may be needed for the primary instructor.
7. References: Appropriate vehicle operator's manual.

D. SEQUENCE OF ACTIVITY.

1. Introduction:
 - a. Interest device.
 - b. Tie-in.
 - c. Lesson objective (paragraph A).

d. Procedures:

(1) Explanation.

(2) Summary.

NOTE: At this time, separate the class into groups of three and assign each group to a vehicle. Ensure each group has an assistant instructor. The assistant instructor will identify and demonstrate the use of each item to his group of students as the instructor explains each item.

2. Explanation and demonstration: Show the location and describe and explain the use of the controls: instruments, indicators, and equipment. In the operator's manual and during this class, the term "left" indicates the driver's side of the vehicle and the term "right" indicates the passenger's side of the vehicle. There are basically three groups of controls: engine, primary vehicle, and secondary vehicle. Vehicle instruments tell the driver about the condition of the vehicle and its accessories.

a. Engine controls. These controls start and shut down the engine. Engine controls are similar in most vehicles; however, there are some variations depending on the type of engine, manufacturer, and the type of starter.

(1) Engine control switch (battery or ignition switch). This switch provides electrical energy to start the engine. In some vehicles, it is also used to stop the engine.

(2) Starter button. This switch activates the starter. With most newer vehicles, this switch is part of the ignition switch.

(3) Engine stop control knob. This is used on some diesel and multifuel engines to shut off the engine. The knob or handle is pulled out and held there until the engine stops.

b. Primary vehicle controls. These are the controls that are used to make the vehicle do what the driver wants it to do.

(1) Clutch pedal. On vehicles equipped with manual transmission, the clutch connects the engine to the drive train. It has three positions: engaged, disengaged, and free play.

(2) Transmission controls. These vary with the different types of transmissions: automatic, semiautomatic, and manual. Explain the shift pattern and operating range.

(3) Accelerator pedal. This controls the vehicle's road speed. Push down on the accelerator to increase speed and ease off to reduce speed.

(4) Steering wheel. This is used to direct the vehicle. The steering wheel should be grasped at the three o'clock and nine o'clock positions, with palms facing inward.

(5) Brake controls:

(a) The foot brake operates the service brakes on the vehicle and some trailers (if trailer is equipped with hydraulic or air brakes).

(b) The parking brake control may be a flip switch, a push-pull knob, or a lever. It should be applied only after the vehicle has been stopped.

(6) Traction control devices. Some vehicles are equipped with devices to allow the operator to gain traction. This can be an interaxle differential lock control, a transfer case sprag unit, or front wheel drive. Most are controlled by switches or levers.

c. Secondary vehicle controls. These controls do not affect vehicle movement or power. The number and function of the secondary controls vary with design and available equipment options.

(1) Vision:

(a) Lights.

(b) Windshield wipers.

(c) Defrosters.

(d) Mirrors.

(2) Communication:

(a) Horns.

(b) Radios.

(c) Lights (headlights, brake lights, turn signals, four-way flashers).

(3) Comfort:

(a) Seat position.

- (b) Air vents.
- (c) Air conditioner.
- (d) Window operating mechanisms.
- (e) Heater.

(4) Safety:

- (a) Seat belts.
- (b) Door locks.

d. Vehicle instruments. Gauges and indicators tell the driver about the condition of the vehicle and its accessories. Vehicles are also equipped with warning lights or buzzers to indicate when something has reached a danger point. Monitoring the following will warn the driver of impending problems:

- (1) Basic instruments, such as fuel gauge, speedometer, voltmeter, and odometer.
- (2) Pressure gauges, such as oil and air.
- (3) Temperature gauges, such as water and transmission.
- (4) Tachometer or tachograph, if equipped.
- (5) Warning devices, such as low air pressure alarm and transmission temperature alarm.

e. Basic issue items (BII) and troop-installed items. The following are BII or troop-installed items:

- (1) Fire extinguisher(s).
- (2) First aid kit.
- (3) Highway warning kit or flares.
- (4) Tire chains, if required.
- (5) Jack, lug wrench, tools, spare tire, and so forth.

3. Practical exercise: None.

4. Evaluation: Students are evaluated daily during driving tasks and tested during the end of course comprehensive test (EOCCT).

5. Summary:

- a. Recap main points.
- b. Allow for questions.
- c. Clarify questions.
- d. Give closing statement.

6. Retraining: Training is reinforced during daily driving tasks.

E. SAFETY RESTRICTIONS. None.

F. ADDITIONAL COMMENTS AND INFORMATION. Recommended instructional time is 1 hour (conference).

LESSON TITLE: PERFORM OPERATOR PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

TASK NUMBER: 551-721-1352 (Perform Vehicle Preventive Maintenance Checks and Services [PMCS]) and 551-721-1353 (Perform Preventive Maintenance Checks and Services on Trailers)

A. TRAINING OBJECTIVE.

TASK: Perform operator preventive maintenance checks and services on wheeled vehicles and trailers.

CONDITIONS Given instruction, a DA Form 2404, a pencil, appropriate vehicle operator's manual, appropriate trailer operator's manual, equipment records folder, rags, lubricants, coolant, a trailer, and a wheeled vehicle with BII.

STANDARD: Inspect the vehicle and trailer according to the PMCS tables listed in the operator's manuals, correct all faults within the operator's level of maintenance, and record all others legibly on DA Form 2404. If no faults are found, make necessary entries on DA Form 2404.

B. INTERMEDIATE TRAINING. None.

C. ADMINISTRATIVE INSTRUCTIONS.

1. Training time: As scheduled.
2. Training location: Motor pool as scheduled.
3. Training type: Demonstration and practical exercise.
4. Students: Scheduled personnel.
5. Principal and assistant instructors required: One primary instructor, one assistant instructor for each three students for the demonstration, and one assistant instructor for each three students for the practical exercise.
6. Training aids and equipment: Rags, lubricants, coolant, DA Form 2404, pencil, appropriate vehicle operator's manual, appropriate trailer operator's manual, equipment records folder, a trailer, and a wheeled vehicle with BII for every three students.
7. References: Appropriate vehicle operator's manual, appropriate trailer operator's manual, and DA Pamphlet 738-750.

D. SEQUENCE OF ACTIVITY.

1. Introduction:
 - a. Interest device.
 - b. Tie-in.
 - c. Lesson objective (paragraph A).
 - d. Procedures:
 - (1) Explanation.
 - (2) Practical exercise.
 - (3) Summary.
2. Explanation and demonstration: Demonstrate before, during, after, weekly, and monthly PMCS to the students.
3. Practical exercise:
 - a. Assign students to vehicles/trailers and issue vehicle operator's manual, trailer operator's manual, pencils, DA Form 2404, and equipment records folder. Instruct students on the location of rags, lubricants, and coolant.
 - b. Students perform PMCS.
4. Evaluation: Check each student's performance of PMCS.
5. Summary:
 - a. Recap main points.
 - b. Allow for questions.
 - c. Clarify questions.
 - d. Give closing statement.
6. Retraining: Retrain No-Gos and slow learners. PMCS is conducted daily along with driving tasks and reinforced throughout the course. Students are tested on the end of course comprehensive test.

E. SAFETY RESTRICTIONS.

TC 21-305-7

1. Ensure all chock blocks (if required) are in place when vehicles are parked.
2. Ensure students remove all jewelry and identification tags before performing PMCS.
3. Ensure students pay particular attention to the cautions and warnings listed in the operator's manual.
4. Ensure the transmission is always placed in neutral (some automatics are placed in park), the parking brake is set, the engine is shut off, and the ignition key is removed (if equipped) before leaving the vehicle.

F. ADDITIONAL COMMENTS AND INFORMATION. Recommended instructional time is 2 hours (1.0 demonstration and 1.0 practical exercise). The remaining PMCS is performed throughout the course along with driving tasks.

LESSON TITLE: PREPARE DD FORM 1970 (MOTOR EQUIPMENT UTILIZATION RECORD)

TASK NUMBER: 551-721-1352 (Perform Vehicle Preventive Maintenance Checks and Services)

A. TRAINING OBJECTIVE.

TASK: Make correct vehicle operator entries on DD Form 1970.

CONDITIONS Given instruction, DD Form 1970, pencil, and practical exercise.

STANDARD: Make the required operator entries on DD Form 1970 in correct sequence according to DA Pamphlet 738-750. Each student has 15 minutes to complete the practical exercise with no errors. Student will be graded on a Go/No-Go basis.

B. INTERMEDIATE TRAINING. None.

C. ADMINISTRATIVE INSTRUCTIONS.

1. Training time: As scheduled.
2. Training location: Scheduled classroom.
3. Training type: Conference and practical exercise.
4. Students: Scheduled personnel.
5. Principal and assistant instructors required: One primary instructor for the conference and one assistant instructor for each 20 students for the practical exercise.
6. Training aids and equipment: Overhead projector, screen, transparencies, practical exercise situation sheet (one per student), and DD Form 1970 (one per student).
7. References: DA Pamphlet 738-750.

D. SEQUENCE OF ACTIVITY.

1. Introduction:
 - a. Interest device.
 - b. Tie-in.

c. Lesson objective (paragraph A).

d. Procedures:

(1) Explanation.

(2) Practical exercise.

(3) Summary.

2. Explanation and demonstration:

a. Explain the purpose and use of DD Form 1970. Also explain the dispatcher entries that are entered on the form.

b. Explain the operator entries required to be entered on DD Form 1970.

3. Practical exercise: Hand out one practical exercise and one DD Form 1970 to each student. Student will complete practical exercise within 15 minutes.

4. Evaluation: Check each student's practical exercise.

5. Summary:

a. Recap main points.

b. Allow for questions.

c. Clarify questions.

d. Give closing statement.

6. Retraining: Retrain and retest No-Gos. No-Gos will be retrained and retested after normal duty hours.

E. SAFETY RESTRICTIONS. None.

F. ADDITIONAL COMMENTS AND INFORMATION. Recommended instructional time is 1 hour (.5 conference and .5 practical exercise).

MOTOR EQUIPMENT UTILIZATION RECORD							
DATE (YYMMDD)		TYPE OF EQUIPMENT		REGISTRATION NO./SERIAL NO.		ADMINISTRATION NO.	
920105 *		TRK, UTIL, M1009 *		A2241B *		21 *	
ORGANIZATION NAME		ACTION	TIME	MILES	HOURS	FUEL	OIL
3d Support Co. *							
1ST OPERATOR (Last Name, First, M.I.)		IN				REPORT TO (Last Name, First, M.I.)	
JONES, JOHN P. SPC *		OUT	0800 *	111 *		BUELL, SHIRLEY P. MAJ *	
OPERATOR'S SIGNATURE		TOTAL				DISPATCHER'S SIGNATURE	
						<i>Joe Smol, PFC *</i>	
2D OPERATOR (Last Name, First, M.I.)		IN				REPORT TO (Last Name, First, M.I.)	
		OUT				DISPATCHER'S SIGNATURE	
OPERATOR'S SIGNATURE		TOTAL					
3D OPERATOR (Last Name, First, M.I.)		IN				REPORT TO (Last Name, First, M.I.)	
		OUT				DISPATCHER'S SIGNATURE	
OPERATOR'S SIGNATURE		TOTAL					
4TH OPERATOR (Last Name, First, M.I.)		IN				REPORT TO (Last Name, First, M.I.)	
		OUT				DISPATCHER'S SIGNATURE	
OPERATOR'S SIGNATURE		TOTAL					
DESTINATION		TIME		RELEASED BY		REMARKS	
		ARRIVE	DEPART	(Signature)			
FROM							
1.							
TO							
2.							
TO							
3.							
TO							
4.							
TO							
5.							
TO							
6.							
TO							
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TO							
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TO							
10.							
TO							
11.							
TO							
12.							
TO							
13.							
TO							
14.							
TO							
15.							
TO							
16.							

DD FORM 1970
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EDITION OF FEB 75 MAY BE USED.

NOTE: * Denotes dispatcher entries. This sample can be used to make a transparency for an overhead projection system.

MOTOR EQUIPMENT UTILIZATION RECORD							
DATE (YYMMDD)		TYPE OF EQUIPMENT		REGISTRATION NO./SERIAL NO.		ADMINISTRATION NO.	
920105 *		TRK, UTIL, M1009 *		A2241B *		21 *	
ORGANIZATION NAME 3d Support Co. *		ACTION	TIME	MILES	HOURS	FUEL 5 gal	OIL 1 qt
1ST OPERATOR (Last Name, First, M.I.) JONES, JOHN P. SPC *		IN	1430	7201		REPORT TO (Last Name, First, M.I.) BUELL, SHIRLEY P. MAJ *	
OPERATOR'S SIGNATURE <i>John P Jones</i>		OUT	0800 *	7111 *		DISPATCHER'S SIGNATURE <i>Joe Smith PFC *</i>	
		TOTAL	6:30	90		REPORT TO (Last Name, First, M.I.)	
2D OPERATOR (Last Name, First, M.I.)		IN				DISPATCHER'S SIGNATURE	
OPERATOR'S SIGNATURE		OUT				REPORT TO (Last Name, First, M.I.)	
		TOTAL				DISPATCHER'S SIGNATURE	
3D OPERATOR (Last Name, First, M.I.)		IN				REPORT TO (Last Name, First, M.I.)	
OPERATOR'S SIGNATURE		OUT				DISPATCHER'S SIGNATURE	
		TOTAL				REPORT TO (Last Name, First, M.I.)	
4TH OPERATOR (Last Name, First, M.I.)		IN				DISPATCHER'S SIGNATURE	
OPERATOR'S SIGNATURE		OUT				REPORT TO (Last Name, First, M.I.)	
		TOTAL				DISPATCHER'S SIGNATURE	
DESTINATION	TIME		RELEASED BY (Signature)	REMARKS			
	ARRIVE	DEPART					
FROM							
1. Motor Pool	/	0815					
TO							
2. TA 5	0840	0930					
TO							
3. Bldg 1211	1000	1015					
TO							
4. TA 2	1030	1110					
TO							
5. Bldg 2202	1130	1230					
TO							
6. TA 57	1300	1400					
TO							
7. Motor Pool	1430	/	<i>Joe Smith, ssg</i>				
TO							
8.							
TO							
9.							
TO							
10.							
TO							
11.							
TO							
12.							
TO							
13.							
TO							
14.							
TO							
15.							
TO							
16.							

DD FORM 1970
APR 61

EDITION OF FEB 75 MAY BE USED.

NOTE: * Denotes dispatcher entries. This sample can be used to make a transparency for an overhead projection system.

PRACTICAL EXERCISE

LESSON TITLE: PREPARE DD FORM 1970 (MOTOR EQUIPMENT UTILIZATION RECORD)

NAME _____ RANK _____ DATE _____

To complete this practical exercise, you will need one DD Form 1970 with dispatcher entries made and pen or pencil. You have 15 minutes to complete this practical exercise.

Using the information provided in the situation below, make all required operator entries on DD Form 1970 in the proper sequence within the prescribed time limit.

1. SITUATION:

a. You left the motor pool in an M35A2 2 1/2-ton cargo truck. Your run included stops at the following areas:

LOCATION	ARRIVED	DEPARTED
Motor pool		0715
Bldg 661	0730	0750
Bldg 705	0800	0830
Training area TA102	0920	1050
Dining facility Bldg 663	1120	1230
Training area TA191	1300	1530
Motor pool	1600	

b. When you return to the motor pool, your odometer reading is 8202 and your hourmeter reading is 503. You also note that you filled the vehicle with 5 gallons of diesel. No oil was added. The NCOIC was SSG Smith and he releases you when you arrive back at the motor pool at 1600 hours.

2. REQUIREMENT:

a. Complete the attached DD Form 1970.

b. Make sure your entries are legible (which means other people can read your handwriting) and accurate (which means the entries agree with the details of the information in the situation).

LESSON TITLE: REPORT AN ACCIDENT (MAKE REQUIRED ENTRIES ON DD FORM 518 AND SF 91)

TASK NUMBER: 551-721-1388 (Complete DD Form 518 and SF 91)

A. TRAINING OBJECTIVE.

TASK: Make required entries on DD Form 518 (Accident Identification Card) and SF 91 (Operator's Report of Motor Vehicle Accident).

CONDITIONS Given instruction, DD Form 518, SF 91, pencil, and practical exercise.

STANDARD: Make the required entries on DD Form 518 and SF 91 accurately, legibly, and completely according to FM 21-305. Each student has 45 minutes to complete the practical exercise with no errors. Student will be graded on a Go/No-Go basis.

B. INTERMEDIATE TRAINING. None.

C. ADMINISTRATIVE INSTRUCTIONS.

1. Training time: As scheduled.
2. Training location: Classroom as scheduled.
3. Training type: Conference and practical exercise.
4. Students: Scheduled personnel.
5. Principal and assistant instructors required: One primary instructor for the conference and one assistant instructor for each 20 students for the practical exercise.
6. Training aids and equipment: Overhead projector, screen, transparencies, practical exercise situation sheet (one per student), pencils, DD Form 518 (one per student), and SF 91 (one per student).
7. References: FM 21-305.

D. SEQUENCE OF ACTIVITY.

1. Introduction:
 - a. Interest device.

- b. Tie-in.
- c. Lesson objective (paragraph A).
- d. Procedures:
 - (1) Explanation.
 - (2) Practical exercise.
 - (3) Summary.

2. Explanation and demonstration:

- a. Precautions and procedures. The following procedures are not necessarily in the correct order. Each accident must be assessed to determine what should be done and in what order.
 - (1) Take precautions to prevent further accidents or injuries, such as road guards, highway warning devices, and flares.
 - (2) Render first aid to the injured.
 - (3) If a fire breaks out, use an extinguisher or sand and notify the fire department. Take precautions to prevent fire; for example, shut off engines and prohibit smoking.
 - (4) Notify authorities for emergency services (police, ambulance, rescue, or fire fighting, civil or military depending on who has jurisdiction).
 - (5) Follow the rules or regulations of the state or area where the accident took place when moving the vehicle from the scene of the accident.
- b. Driver's responsibilities.
 - (1) When involved in an accident, always stop and investigate it.
 - (2) Secure hard-to-get facts first (names and addresses of people involved and witnesses, condition of the road, position of the vehicles, and an estimate of the amount of damage).
 - (3) Be exact (spell names correctly, give street addresses by number, state visible damage, and show exactly where vehicles were before and after the accident and what obstacles blocked the driver's view).

(4) Give no opinion about who was at fault, be polite, and try to get all the necessary information.

c. Instructions for filling out DD Form 518 (Accident Identification Card).

(1) Explain the purpose and use of DD Form 518.

(2) Explain filling out this form block by block. Ensure zip codes are included and the students are aware that disclosure of the social security number is voluntary.

(3) Explain the disposition of the form. Give it to the person directly involved in the accident or, if a parked vehicle, place it in or on the parked vehicle in a conspicuous and secure location, such as under the windshield wiper.

d. Instructions for filling out SF 91 (Operator's Report of Motor Vehicle Accident).

(1) Explain the purpose and use of SF 91.

(2) Explain filling out this form block by block. No blocks should be left completely blank. If there is no information to put in a certain block, write "None," "Unknown," or "NA."

3. Practical exercise: Hand out (one of each) practical exercise, SF 91, and DD Form 518 to each student. Student will complete the practical exercise within 45 minutes.

4. Evaluation: Check each student's practical exercise.

5. Summary:

a. Recap main points.

b. Allow for questions.

c. Clarify questions.

d. Give closing statement.

6. Retraining: Retrain and retest No-Gos. No-Gos will be retrained and retested after normal duty hours.

E. SAFETY RESTRICTIONS. None.

F. ADDITIONAL COMMENTS AND INFORMATION. Recommended instructional time is 2 hours (1.0 conference and 1.0 practical exercise).

PRIVACY ACT STATEMENT

AUTHORITY: Sec 638a, Title 31, USC and EO 9397.

PRINCIPAL PURPOSE: To provide persons involved in an accident with a DoD owned/leased vehicle the identity of the person with the authority to act on the matter.

ROUTINE USES: Placed in each vehicle for purpose stated above. When a DoD vehicle is involved in an accident, the driver provides the other party(s) with a properly executed DD Form 518. The SSN is requested because of similarity of names, to further identify the driver of the DoD vehicle.

DISCLOSURE IS VOLUNTARY. No disciplinary action is taken in cases where the SSN is not provided.

GPO : 1983 O - 413-728

ACCIDENT-IDENTIFICATION CARD	
(THIS FORM IS SUBJECT TO THE PRIVACY ACT OF 1974-SEE REVERSE)	
Any correspondence regarding accident should be addressed to:	
Commanding General Ft. Eustis, Va 23604 - 5000	
MAKE REFERENCE TO	
DATE OF ACCIDENT	
6 August 1990	
MAKE AND TYPE OF VEHICLE	
1 1/4 Ton 4x4, Cargo	
REGISTRATION NO.	
2C 111 FX	
DRIVER (Last name-first name-initial)	
Jones, John J.	
SSN	GRADE
000-11-0000	SPC
ORGANIZATION	
123d Trans. Co. Ft Eustis, Va. 23604-5000	

DD FORM 518 1 OCT 78 PREVIOUS EDITION IS OBSOLETE.

NOTE: This is a sample DD Form 518 and can be used to make a transparency for an overhead projection system.

OPERATOR'S REPORT OF MOTOR VEHICLE ACCIDENT		DEPARTMENT OR AGENCY <u>Department of the Army</u>	
This form is to be completed by the Government operator at the time and the scene of the accident if possible. See the Privacy Act Statement on page 4.		NAME AND LOCATION OF ORGANIZATION TO WHICH YOU ARE ASSIGNED <u>123^d Transportation Company Ft. Eustis, Va. 23604-5000</u>	
1. OPERATOR DATA	LAST NAME <u>Jones</u>	FIRST NAME <u>John</u>	MIDDLE INITIAL <u>J</u>
	AGE <u>22</u>	RANK, RATING OR TITLE <u>SPC</u>	SERVICE NUMBER OR SOCIAL SECURITY NO. <u>000-11-0000</u>
	GOVT. MOTOR VEHICLE OPERATOR PERMIT NO. <u>J-0000</u>	HOME ADDRESS (Number, street, city, State, ZIP code) <u>123^d Trans. Co. Ft. Eustis, Va 23604-5000</u>	HOME TELEPHONE NO. <u>878-0100</u>
2. ACCIDENT TIME AND LOCATION	ACCIDENT OCCURRED	DATE <u>22/1/92</u>	DAY OF WEEK <u>Monday</u>
		TIME <u>10:30</u>	<u>A.M.</u>
		NUMBER OF HOURS ON DUTY PRIOR TO ACCIDENT <u>3</u>	
	PLACE OF ACCIDENT (If in city, give number, street, city and State, if outside city limits, indicate mileage to nearest city, or other landmark.) <u>Inter section of Ft Eustis Blvd. and Jefferson Ave, Newport News, Va.</u>		
	ORIGIN OF TRIP: <u>123^d Trans. Co. Ft Eustis, Va</u>	DESTINATION <u>Ft. A.P. Hill, Va</u>	
	PURPOSE OF TRIP <u>On site coordination</u>		
3. FEDERAL VEHICLE (Including privately owned Federally operated)	MAKE <u>micor, 11/4 ton, 4x4</u>	TYPE <u>Cargo</u>	REGISTRATION NUMBER OR OTHER IDENTIFICATION <u>2C111 FX</u>
	PARTS OF VEHICLE DAMAGED (Describe) <u>Tailgate bent</u>		OPERATOR'S ESTIMATED AMOUNT OF DAMAGE <u>\$250.00</u>
	IF THIS WAS A BACKING ACCIDENT, WAS A GUIDE AVAILABLE? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If "Yes," was guide used? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
4. OTHER VEHICLE INVOLVED (If more than one, show in item 12, page 3)	MAKE <u>Ford</u>	TYPE <u>2-Dr. Sedan</u>	YEAR <u>1986</u>
	OPERATOR'S STATE PERMIT NUMBER <u>Va. - 111-11-1110</u>		VEHICLE LICENSE NUMBER AND STATE <u>ABC-111, Va.</u>
	OPERATED BY	NAME <u>Joseph P. Smith</u>	
		HOME ADDRESS (Number, street, city, State, ZIP code) <u>Rt 1, Box 372, Gloucester, Va 23601-100</u>	
	OWNED BY	NAME <u>Joseph P. Smith</u>	
		ADDRESS (Number, street, city, State, ZIP code) <u>Rt 1, Box 372, Gloucester, Va 23601-1000</u>	
PARTS OF VEHICLE DAMAGED (Describe) <u>Hood bent, grill broken</u>		OPERATOR'S ESTIMATED AMOUNT OF DAMAGE <u>\$700.00</u>	
5. OTHER PROPERTY DAMAGED (Explain. If more space is needed, continue in item 12, Page 3.) <u>None</u>			

91-108

STANDARD FORM 91 PAGE 1 (REV. 11-76)
Prescribed by GSA, FPMR 101-39-8

NOTE: This is a sample of SF 91, page 1, and can be used to make a transparency for an overhead projection system.

		NAMES		HOME ADDRESSES		
6. PERSONS INJURED		None				
7. OCCUPANTS IN YOUR VEHICLE		1LT James W. Doe		123 ^d Trans Co. Ft Eustis, Va		
8. OCCUPANTS IN OTHER VEHICLE(S)		None				
9. WITNESSES AND POLICE		None				
		POLICE OFFICER CPL. Betty James		BADGE NUMBER 1234	PRECINCT OR HEADQUARTERS Newport News	
10. ACCIDENT CONDITIONS	INDICATE:	FEDERAL VEHICLE <small>(Includes privately owned Federally operated)</small>		OTHER VEHICLE (2)		
	DIRECTION OF TRAVEL	East on Ft Eustis, Blvd		East on Ft Eustis Blvd		
	SIDE OF STREET OR HIGHWAY	Right		Right		
	APPROXIMATE SPEED	Stopped (0) MILES PER HOUR		10 MILES PER HOUR		
	CONDITION OF ROADWAY <small>(Wet or dry, icy, etc.)</small>	Wet		WEATHER <small>(Clear, foggy, rain, snow, etc.)</small>	Rain	
				TYPE OF ROADWAY <small>(concrete, macadam, etc.)</small>		
				Black top		
OTHER INFORMATION <small>(Explain stop signs, traffic signals, obstructions, etc.)</small>						
Traffic light located at intersection by "X".						

STANDARD FORM 91 PAGE 2 (REV. 11-76)

NOTE: This is a sample of SF 91, page 2, and can be used to make a transparency for an overhead projection system.

11. EVENTS AFTER ACCIDENT	STATE WHO GAVE MEDICAL AID, IF ANY WAS GIVEN		WHERE WAS INJURED TAKEN		
	None		NA		
	CONDITION OF OTHER DRIVER				
	Good				
If other driver or persons injured made statements as to cause of accident and extent of personal or property damage, relate conversation, also, give names and addresses of others hearing such statements.					
Other driver made no statement.					
12. OTHER VEHICLE OR PROPERTY INVOLVED CONTINUATION—If more than one vehicle involved	MAKE		TYPE	YEAR	
	None		NA	NA	
	OPERATOR'S STATE PERMIT NUMBER		VEHICLE LICENSE NUMBER AND STATE		
	NA		NA		
	OPERATED BY	NAME			
		None			
	OWNED BY	HOME ADDRESS (Number, street, city, State, ZIP code)			
NA					
NAME				OPERATOR'S ESTIMATED AMOUNT OF DAMAGE	
None				\$ NA	
ADDRESS (Number, street, city, State, ZIP code)					
NA					
PARTS OF VEHICLE DAMAGED (Describe)			OPERATOR'S ESTIMATED AMOUNT OF DAMAGE		
NA			\$ NA		
OTHER PROPERTY DAMAGED (Explain)					
None					
13. DIAGRAM WHAT HAPPENED BY USING THESE SYMBOLS, BELOW					
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>1. Number Federal vehicle as 1—other vehicle as 2—additional vehicles as 3, and show direction of travel by arrow (Example → ○ ← 1)</p> <p>2. Use solid line to show path before accident</p> <p>3. Show path after accident — — — — — ○</p> </div> <div style="width: 45%;"> <p>1. Show direction by → ○</p> <p>2. Show retraced by — — — — — ○</p> <p>3. Give name or number of streets or highways</p> <p>4. Indicate north by arrow in this circle ↻</p> </div> </div>					

STANDARD FORM 91 PAGE 3 (REV. 11-76)

NOTE: This is a sample of SF 91, page 3, and can be used to make a transparency for an overhead projection system.

14. OPERATOR'S STATEMENT OF ACCIDENT AND USE OF SAFETY EQUIPMENT

Tell in your own way how the accident happened:

I was driving east on Ft Eustis Blvd. I stopped at the intersection of Ft Eustis Blvd and Jefferson Ave for a red traffic signal. I heard tires squealing behind me. I glanced in my rear view mirror and saw a red Ford sliding towards me. The Ford hit me and pushed my vehicle about 10 feet into the intersection.

WAS VEHICLE EQUIPPED WITH SEAT BELTS?

YES NO

If "Yes," were they in use at time of accident?

YES NO

Have you answered ALL the questions as completely as possible? YES

In compliance with the Privacy Act of 1974, the following information is provided: Solicitation of the information requested on this form is authorized by Title 40 U.S.C. Section 491. Disclosure of the information by a Federal employee is mandatory as it is the first step in the Government's investigation of a motor vehicle accident. The principal purposes for which the information is intended to be used are to provide necessary data for use by legal counsel in legal actions resulting from the accident and to provide accident information/statistics for use in analyzing accident causes and developing methods of reducing accidents. Routine use of the information may be by Federal, State or local governments, or agencies, when relevant to civil, criminal, or regulatory investigations or prosecutions. An employee of a Federal agency who fails to report accurately a motor vehicle accident involving a Federal vehicle or who refuses to cooperate in the investigation of an accident may be subject to administrative sanctions.

OPERATOR SIGN HERE

John J. Jones

DATE SIGNED

22 Jan 92

NOTE: This is a sample of SF 91, page 4, and can be used to make a transparency for an overhead projection system.

PRACTICAL EXERCISE

LESSON TITLE: REPORT AN ACCIDENT (MAKE REQUIRED ENTRIES ON DD FORM 518 AND SF 91)

To complete this practical exercise, you will need one DD Form 518, one SF 91, and pen or pencil. You have 45 minutes to complete this practical exercise.

1. SITUATION:

a. On Friday, 10 January 1992, at 0800 hours, you left the motor pool in an M35A2 2 1/2-ton cargo truck (registration number NG25PX) that had been dispatched to you. Your destination was the orderly room, Company A, 225th Infantry Battalion, Fort Walk, NY 09111-5000, and you were to report to your first sergeant.

b. Approximately 10 minutes later, you were driving east on MacArthur Boulevard (a four-lane street) in the right lane at 20 MPH. A civilian vehicle driving north on Pershing Street made a right turn (east) onto MacArthur Boulevard. You applied your brakes but hit the civilian's truck on the left rear fender. The civilian was in the right lane travelling 5 to 10 MPH when he was hit. His truck moved 20 to 30 feet ahead after the collision, and stopped by the right curb. Your vehicle also moved another 20 to 30 feet and ended up in the left lane. The weather was clear, and the concrete roadway was dry.

c. You stopped your vehicle, jumped out, and ran up to the civilian's vehicle. Luckily, he was not hurt. Since there were no other occupants in either vehicle and no threat of fire or explosion, there was no need to call the fire department or an ambulance. You and the civilian driver exchanged information. You wrote down the following information from his driver's license and registration:

Operator's name:	John P. Jones.
Operator's home address:	121 Buffalo Street, Indian, Montana 54321-1000.
Operator's state permit number and state:	111-00-1000, Montana.
Make of vehicle:	Dodge.
Type:	Dakota Pickup.
Year:	1990.
Vehicle license number and state:	123-ABC, Montana.
Vehicle owned by:	John P. Jones.
Owner's address:	121 Buffalo Street, Indian, Montana 54321- 1000.

d. If you have any reason to doubt the information you were given, you make a note of it on your form. Record the estimates of damage done to each vehicle. You looked at the civilian's truck. His left rear fender was dented, taillight broken, and the tailgate was bent; he estimated the amount of damage at \$1,000. Then you looked at your vehicle. Your front bumper was scratched and bent; approximate amount of damage is \$200.

e. After estimating the damage, you went to a phone across the street and called the military police. Within minutes, military police officer SPC Joe Smith, badge number 321, Company B, 123d MP Battalion, arrived. He recorded your comments and the civilian's comments. There were no other witnesses to the accident. The officer did note the fact that there is a traffic light with a turn-on-red signal at the southeast corner of Pershing Street, that your vehicle was equipped with seat belts, and that you were using the seat belt at the time of the accident. The officer recorded the information. Since you had recorded the information and given the other driver a copy of DD Form 518, you drove back to the motor pool.

2. REQUIREMENT:

- a. Complete the attached DD Form 518 and SF 91.
- b. Make sure your entries are legible (which means other people can read your handwriting) and accurate (which means the entries agree with the details of the information in the situation). Use your name, rank, social security number, and present age to complete these forms. Your military driver's license number is R-1456. You live in the A Company barracks and the barracks phone number is 555-9999.

LESSON TITLE: DRIVE VEHICLE WITH MANUAL TRANSMISSION

TASK NUMBER: 551-721-1365 (Drive Vehicle with Manual Transmission)

A. TRAINING OBJECTIVE.

TASK: Drive vehicle with manual transmission.

CONDITIONS Given instruction, DD Form 1970, DA Form 2404, pencil, appropriate vehicle operator's manual, equipment records folder, rags, lubricants, coolant, a suitable training area, improved surfaced roads, and a manual transmission vehicle with BII.

STANDARD: Without accident or injury, operate the vehicle: start the vehicle, put the vehicle in motion, read gauges, upshift and downshift the transmission smoothly through all gear ranges, manipulate the controls, use correct braking procedures, perform basic driving maneuvers, and shut down the engine.

B. INTERMEDIATE TRAINING. None.

C. ADMINISTRATIVE INSTRUCTIONS.

1. Training time: As scheduled.
2. Training location: Motor pool, training area, and driver training route as scheduled.
3. Training type: Conference, demonstration, and practical exercise.
4. Students: Scheduled personnel.
5. Principal and assistant instructors required: One primary instructor for the conference, one assistant instructor for each three students for the demonstration, and one assistant instructor for each three students for the practical exercise.
6. Training aids and equipment: Rags, lubricants, coolant, 40 traffic cones or empty POL drums, DA Form 2404, DD Form 1970, pencil, appropriate vehicle operator's manual, equipment records folder, and a wheeled vehicle with BII for each three students.
7. References: Appropriate vehicle operator's manual and FM 21-305.

D. SEQUENCE OF ACTIVITY.

1. Introduction:

- a. Interest device.
 - b. Tie-in.
 - c. Lesson objective (paragraph A).
 - d. Procedures:
 - (1) Explanation and demonstration.
 - (2) Practical exercise.
 - (3) Summary.
2. Explanation and demonstration:
- a. Starting the engine.
 - (1) Fuel efficient starting.
 - (2) Cold weather starting procedures.
 - (3) Engine warm up.
 - (4) Excessive idling.
 - b. Putting the vehicle in motion.
 - (1) Explain gearshift pattern.
 - (2) Depress the clutch pedal fully and shift to the lowest forward gear.
 - (3) Increase the engine revolutions per minute (RPM) slightly (gas engines only).
 - (4) Release the clutch to the friction point.
 - (5) Release the parking brake and gradually release the clutch until it is fully engaged.
 - (6) When the vehicle starts to move, gradually increase the engine RPM to increase vehicle speed.
 - (7) When the vehicle is in motion with clutch fully engaged, remove foot from clutch ready to shift to another gear or stop.

(8) Avoid excessive clutch slippage by fully engaging it as soon as possible without stalling the engine.

c. Double clutching (must be used in some vehicles).

(1) Basic upshifting method.

(a) Release the accelerator and push in the clutch and shift to neutral at the same time.

(b) Release the clutch.

(c) Let the engine and gears slow down to the RPM required for the next higher gear.

(d) Push in the clutch and shift to the higher gear at the same time.

(e) Release the clutch and press the accelerator at the same time.

(2) Basic downshifting method.

(a) Release the accelerator and push in the clutch and shift to neutral at the same time.

(b) Release the clutch.

(c) Press the accelerator to increase engine and gear speed to the RPM required in the lower gear.

(d) Push in the clutch and shift to the lower gear at the same time.

(e) Release the clutch and press the accelerator at the same time.

d. Upshifting the transmission.

(1) Explain the use of the clutch.

(2) Explain the speed at which to upshift.

(3) Continue shifting until the desired road speed is reached.

e. Downshifting the transmission.

(1) Explain the use of the clutch.

(2) Downshift only within the operating range of the engine (RPM).

(3) Describe road conditions requiring downshifting, such as before starting down a grade and before entering a curve, rough roads, snow, rain, restricted speed limits, and built-up areas.

f. Turning the vehicle.

- (1) Basic rules.
- (2) Off-tracking.
- (3) Right turns.
- (4) Left turns.
- (5) Right and left curves.

g. Stopping the vehicle.

- (1) Release the accelerator pedal.
- (2) Downshift within the operating range of the engine (RPM).
- (3) Depress the brake pedal.
- (4) As the vehicle begins to reduce speed, decrease brake pedal pressure.
- (5) Stop smoothly by releasing brake pressure gradually as the stopping rate increases.
- (6) As the vehicle halts, push in the clutch pedal and release the brake pedal.
- (7) After stopping, shift to neutral and reapply the brake just enough to keep the vehicle stationary. Now release the clutch pedal.

h. Shutting down the engine. Shut down procedures vary from vehicle to vehicle. Refer to the vehicle operator's manual for specific procedures.

i. Driving within the training area. Demonstrate driving within the training area.

3. Practical exercise:

a. Assign students to vehicles and issue vehicle operator's manuals, pencils, DA Form 2404, DD Form 1970, and equipment records folder. Instruct students on the location of rags, lubricants, and coolant.

- b. Students perform before-operation PMCS on their assigned vehicle.
- c. Students practice maneuvering the vehicle through the courses laid out in the training area(s). (Sample training areas are at Chapter 6, Figures 6-1 through 6-5.) During-operation PMCS is also conducted at this time.

NOTE: As each student practices driving, an assistant instructor rides in the right front seat. The other two students will ride in the rear seats or troop seats and rotate driving duties. The assistant instructor explains driving techniques, ensures the driver is aware of driving situations, and conducts after-action reviews with each driver. Now is the time to pass on valuable experience and correct any bad driving habits.

- d. After the students have mastered driving the vehicle in the training area, the students will then practice driving on the road.
 - e. Students perform after-operation PMCS and ensure all operator entries required on DA Form 2404 and DD Form 1970 are accurate, complete, and legible.
4. Evaluation: Check each student's performance of PMCS and driving.
 5. Summary:
 - a. Recap main points.
 - b. Allow for questions.
 - c. Clarify questions.
 - d. Give closing statement.
 6. Retraining: Retrain No-Gos and slow learners. Students perform driving tasks daily and are tested on the end of course comprehensive test.

E. SAFETY RESTRICTIONS.

1. Ensure all chock blocks (if required) are in place when vehicles are parked.
2. Ensure students remove all jewelry and identification tags before performing PMCS.
3. Ensure students pay particular attention to the cautions and warnings listed in the operator's manual.
4. Ensure the transmission is always placed in neutral, the parking brake is set, the engine is shut off, and the ignition key is removed (if equipped) before leaving the vehicle.

5. Ensure a safe following distance and speed are maintained when driving in the training area (as determined by the local command).

6. Ensure all occupants wear seat belts (if equipped) while vehicle is in operation.

F. ADDITIONAL COMMENTS AND INFORMATION. Recommended instructional time is 12 hours (1.0 conference, 1.0 demonstration, and 10.0 practical exercise, including 1.5 PMCS).

LESSON TITLE: DRIVE VEHICLE WITH AUTOMATIC TRANSMISSION

TASK NUMBER: 551-721-1366 (Drive Vehicle with Automatic Transmission)

A. TRAINING OBJECTIVE.

- TASK:** Drive vehicle with automatic transmission.
- CONDITIONS** Given instruction, DD Form 1970, DA Form 2404, pencil, appropriate vehicle operator's manual, equipment records folder, rags, lubricants, coolant, a suitable training area, improved surfaced roads, and an automatic transmission vehicle with BII.
- STANDARD:** Without accident or injury, operate the vehicle: start the vehicle, put the vehicle in motion, read gauges, upshift and downshift the transmission smoothly through all gear ranges, manipulate the controls, use correct braking procedures, perform basic driving maneuvers, and shut down the engine.

B. INTERMEDIATE TRAINING. None.

C. ADMINISTRATIVE INSTRUCTIONS.

1. Training time: As scheduled.
2. Training location: Motor pool, training area, and driver training route as scheduled.
3. Training type: Conference, demonstration, and practical exercise.
4. Students: Scheduled personnel.
5. Principal and assistant instructors required: One primary instructor for the conference, one assistant instructor for each three students for the demonstration, and one assistant instructor for each three students for the practical exercise.
6. Training aids and equipment: Rags, lubricants, coolant, 40 traffic cones or empty POL drums, DA Form 2404, DD Form 1970, pencil, appropriate vehicle operator's manual, equipment records folder, and a wheeled vehicle with BII for each three students.
7. References: Appropriate vehicle operator's manual and FM 21-305.

D. SEQUENCE OF ACTIVITY.

1. Introduction:

- a. Interest device.
- b. Tie-in.
- c. Lesson objective (paragraph A).
- d. Procedures:
 - (1) Explanation and demonstration.
 - (2) Practical exercise.
 - (3) Summary.

2. Explanation and demonstration:

- a. Starting the engine.
 - (1) Fuel efficient starting.
 - (2) Cold weather starting procedures.
 - (3) Engine warm-up.
 - (4) Excessive idling.
- b. Explaining the gearshift pattern. Gearshift patterns differ somewhat on the various models of vehicles equipped with automatic transmissions. The following is a typical pattern:
 - (1) "P" (park). The transmission is locked; the truck will not move. Some vehicles do not have a "P" selection. In these vehicles, "N" (neutral) takes the place of "P."
 - (2) "R" (reverse). This puts the truck in reverse for normal backing operations.
 - (3) "N" (neutral). The transmission mechanism is disengaged. The truck wheels can move by coasting, but the truck is not in gear. This selection is used for parking, if the transmission does not have a "P" (park) selection.
 - (4) "D" (drive). This is used for normal driving with light to moderate loads. The vehicle automatically downshifts and upshifts based on vehicle speed. A forced downshift occurs at slower speeds by depressing the accelerator pedal all the way to the floor.

(5) "2" (second). This is used for hill climbing or engine braking to slow the truck when going down a steep hill. The gearshift lever may be shifted from "D" to "2" and from "2" to "D" under most driving conditions.

(6) "1" (first). This is used for maximum engine braking when driving down very steep hills or when maximum performance is required to climb a very steep hill or drive through deep snow or mud.

c. Describing driving tips for automatic transmission vehicles.

(1) Do not coast downhill in "N" (neutral).

(2) Do not shift the transmission gearshift lever to "P" (park) or "N" (neutral) while the truck is in motion.

(3) Do not race or accelerate the engine when shifting from "P" (park) or "N" (neutral) into another gear range.

(4) Do not shift the transmission between forward gear ranges and "R" (reverse) while operating the engine at high speed or heavy throttle.

(5) Do not force the transmission gearshift lever.

(6) Do not shift the transmission gearshift lever to "P" (park) on a hill before setting the parking brake. This puts force on the transmission and makes it difficult to shift the transmission gearshift lever out of "P" (park).

(7) When preparing to drive, do not release the parking brake until the transmission gearshift lever is shifted out of "P" (park).

d. Putting the vehicle in motion.

(1) Start the vehicle and allow the engine to warm up according to the operator's manual.

(2) Shift the transmission gearshift lever to "D" (drive) for normal driving conditions.

(3) Apply pressure to the service brake and release the parking brake.

(4) Release the service brake and accelerate as needed for road, weather, and traffic conditions.

e. Turning the vehicle.

(1) Basic rules.

- (2) Off-tracking.
- (3) Right turns.
- (4) Left turns.
- (5) Right and left curves.

f. Stopping the vehicle.

- (1) Release the accelerator pedal.
- (2) Depress the brake pedal.
- (3) As the vehicle begins to reduce speed, decrease brake pedal pressure.
- (4) Stop smoothly by releasing brake pressure gradually as the stopping rate increases.
- (5) After stopping, apply the brake just enough to keep the vehicle stationary.

g. Shutting down the engine. Shut down procedures vary from vehicle to vehicle. Refer to the vehicle operator's manual for specific procedures.

h. Driving within the training area. Demonstrate driving within the training area.

3. Practical exercise:

- a. Assign students to vehicles and issue vehicle operator's manuals, pencils, DA Form 2404, DD Form 1970, and equipment records folder. Instruct students on the location of rags, lubricants, and coolant.
- b. Students perform before-operation PMCS on their assigned vehicle.
- c. Students practice maneuvering the vehicle through the courses laid out in the training area(s). (Sample training areas are at Chapter 6, Figures 6-1 through 6-5.) During-operation PMCS is also conducted at this time.

NOTE: As each student practices driving, an assistant instructor rides in the right front seat. The other two students will ride in the rear seats or troop seats and rotate driving duties. The assistant instructor explains driving techniques, ensures the driver is aware of driving situations, and conducts after-action reviews with each driver. Now is the time to pass on valuable experience and correct any bad driving habits.

d. After the students have mastered driving the vehicle in the training area, the students will then practice driving on the road.

e. Students perform after-operation PMCS and ensure all operator entries required on DA Form 2404 and DD Form 1970 are accurate, complete, and legible.

4. Evaluation: Check each student's performance of PMCS and driving.

5. Summary:

a. Recap main points.

b. Allow for questions.

c. Clarify questions.

d. Give closing statement.

6. Retraining: Retrain No-Gos and slow learners. Students perform driving tasks daily and are tested on the end of course comprehensive test.

E. SAFETY RESTRICTIONS.

1. Ensure all chock blocks (if required) are in place when vehicles are parked.

2. Ensure students remove all jewelry and identification tags before performing PMCS.

3. Ensure students pay particular attention to the cautions and warnings listed in the operator's manual.

4. Ensure the transmission is always placed in neutral (some automatics are placed in park), the parking brake is set, the engine is shut off, and the ignition key is removed (if equipped) before leaving the vehicle.

5. Ensure a safe following distance and speed are maintained when driving in the training area (as determined by the local command).

6. Ensure all occupants wear seat belts (if equipped) while vehicle is in operation.

F. ADDITIONAL COMMENTS AND INFORMATION. Recommended instructional time is 12 hours (1.0 conference, 1.0 demonstration, and 10.0 practical exercise, including 1.5 PMCS).

LESSON TITLE: DRIVE VEHICLE ON THE ROAD (PRIMARY AND SECONDARY)

TASK NUMBER: 551-721-1365 (Drive Vehicle with Manual Transmission) and 551-721-1366 (Drive Vehicle with Automatic Transmission)

A. TRAINING OBJECTIVE.

TASK: Drive vehicle on the road (primary and secondary).

CONDITIONS Given instruction, DD Form 1970, DA Form 2404, pencil, vehicle operator's manual, equipment records folder, rags, lubricants, coolant, improved surfaced roads, secondary roads, and a wheeled vehicle with BII.

STANDARD: Without accident or injury, operate the vehicle: conduct visual search, communicate intentions, manage space and speed, monitor for hazards, maneuver in emergencies, and conduct skid control and recovery.

B. INTERMEDIATE TRAINING. None.

C. ADMINISTRATIVE INSTRUCTIONS.

1. Training time: As scheduled.
2. Training location: Classroom, motor pool, and driver training route (built-up and rural areas) as scheduled.
3. Training type: Conference and practical exercise.
4. Students: Scheduled personnel.
5. Principal and assistant instructors required: One primary instructor for the conference and one assistant instructor for each three students for the practical exercise.
6. Training aids and equipment: Rags, lubricants, coolant, 40 traffic cones or empty POL drums, DA Form 2404, DD Form 1970, pencil, vehicle operator's manual, equipment records folder, and a wheeled vehicle with BII for each three students.
7. References: FM 21-305 and appropriate vehicle operator's manual.

D. SEQUENCE OF ACTIVITY.

1. Introduction:
 - a. Interest device.

- b. Tie-in.
- c. Lesson objective (paragraph A).

d. Procedures:

- (1) Explanation.
- (2) Practical exercise.
- (3) Summary.

2. Explanation and demonstration:

a. Conduct visual search.

(1) Seeing ahead and to the sides.

(a) Importance of seeing properly. Get a clear, complete, and accurate picture of the traffic scene. Look back and forth, near and far.

(b) Distance scanning. Look 12 to 15 seconds ahead. In city driving, this is equal to about one block, while on the open highway, it is about one-quarter of a mile (a much greater distance).

(c) Scanning to the sides:

- Look for anything that could affect your travel path, such as pedestrians, bicycles, intersections, merging lanes, road shoulders, and parked or stalled vehicles.
- Continually look for bailout areas--spaces that might be used to avoid a collision.

(d) Procedures at intersections:

- Look in the correct sequence--left, right, then left again.
- Be aware of blind spots created by mirrors and corner posts of cab.

(2) Using mirrors.

(a) Importance of mirrors. Mostly, the scene behind can only be seen through the left and right side mirrors.

(b) Two types of side mirrors:

- Plain (flat) mirrors give the best view of the rear of the vehicle and the roadway behind, but they do not give a wide view. They can leave blind areas alongside most of the length of the vehicle.
- Convex mirrors are designed with a curvature to give a wide-angle view. They are best used for side close-ups. Convex mirrors eliminate most but not all of the blind area created by the plain mirror. The images you see, however, will be distorted.

(c) Care of mirrors. Clean, tighten, and adjust mirrors to get the maximum view of conditions to the sides and rear of the vehicle.

(3) Seeing to the rear.

(a) Use mirrors to monitor to the rear. Monitor the mirrors every six to eight seconds taking care to not take your eyes off the road ahead for more than one second. Mirrors are used to monitor--

- Load and cargo security.
- Loose or falling cargo.
- Tire fires.
- Any potential hazards on the sides of the vehicle.
- What is beside or behind the vehicle that might be affected by a sudden or emergency move.

(b) Use mirrors to check to the rear when changing speed or position:

- Speed. Monitor the roadway behind for position of other traffic and be prepared to alert vehicles behind, when forced to change speed quickly or unexpectedly.
- Changing lanes. Use all mirrors when changing path of travel to either the left or right. Be aware that blind spots exist both behind and to the sides of the vehicle.

- Turning corners. Check the side view mirrors before reducing speed and also while negotiating the turn. When turning, check the mirrors to prevent the vehicle from causing damage to any person or object.

b. Communicate intentions.

(1) Communicate intention to make a turn.

- (a) Slow vehicle by downshifting or braking.
- (b) Initiate turn signal as early as possible.
- (c) After fully completing the turn, cancel the turn signal.

(2) Communicate intention to back the vehicle.

- (a) Exit vehicle to check for possible obstacles.
- (b) Station someone in the rear to ground guide and block traffic if necessary.
- (c) Turn on flashers and sound horn (when legal to do so).
- (d) Align vehicle to gain the best possible angle of approach.
- (e) Use mirror to assist in viewing the sides and rear of the vehicle.

(3) Communicate intent to other drivers.

- (a) Signal when changing lanes.
- (b) Signal when turning.
- (c) Signal when passing another vehicle.
- (d) Signal when merging into traffic.
- (e) Signal when approaching a parallel parking place.
- (f) Signal when leaving a curb.
- (g) Use four-way flashers when making emergency stops or slowing vehicle.

- (4) Communicate presence to other drivers in the area.
 - (a) Use horn (when legal to do so) to get attention of other drivers.
 - (b) Establish eye contact, once attention is obtained.
 - (c) Use horn early to prevent inappropriate action.
 - (d) Use long blast only in an emergency.
 - (e) Use headlights to get attention of other drivers.
 - (f) Flash headlights to communicate a hazard.
 - (g) Turn lights on when weather conditions or visibility is poor.
 - (h) Use four-way flashers when unloading, when at an accident scene, or when travelling slow (below posted minimum speed limit or well below the posted maximum speed limit).

c. Manage space.

- (1) Maintain adequate clearance to the sides of the vehicle.
 - (a) Keep vehicle centered in the lane.
 - (b) Avoid traveling alongside other vehicles because it leads to an increased chance of collision if either vehicle sways or drifts.
 - (c) Maintain adequate clearance between surrounding vehicles.
 - (d) Maintain a firm grip on the wheel and make minor corrections for winds.
 - (e) Be prepared for drafting effects of surrounding vehicles.
- (2) Deal with tailgaters.
 - (a) Do not tap the brake pedal.
 - (b) Do not turn on the headlights.
 - (c) Stay in the right lane or move into the right lane.

(d) Maintain adequate space between your vehicle and the vehicle ahead. Do not be pushed.

(e) Open up room in front to allow clearance for passing.

(3) Manage overhead space.

(a) The driver must understand that the vehicle's clearance can change with the load.

(b) See the posted overhead clearance.

(c) Choose the lane that may afford more clearance.

(d) If unsure, approach slowly.

(e) Be careful if there is snow or ice on the road (decreased clearance).

(f) If clearance is marginal, take an alternate route. If there is no alternate route, stop and measure clearance before proceeding.

(4) Monitor space below the vehicle for obstructions.

(a) Be aware of railroad tracks.

(b) Be especially careful of unpaved roads.

(c) Check for drainage channels across roads.

(d) Cross potential obstacles at an angle.

(e) Heavy loads may require more caution.

(f) Be careful of hills and small rises in the road.

(g) Low slung trailers (pintle-connected) can become lodged on rises in the road.

(5) Ensure there is adequate space for a right turn.

(a) Initiate turn signal.

(b) Keep rear of vehicle close to the curb.

(c) Pull far forward into the intersection; turn hard right.

- (d) Watch oncoming cars if swinging wide into the left or oncoming lane.
 - (e) Steer vehicle into the desired lane.
 - (f) Cancel signal.
- (6) Ensure there is adequate space for a left turn.
- (a) Initiate turn signal.
 - (b) If there are two turn lanes, take the right-hand lane.
 - (c) Do not turn until you are in the center of the intersection.
 - (d) Ensure there is an adequate gap to make a turn in front of traffic.
 - (e) If applicable, watch for oncoming traffic.
 - (f) Cancel signal.
- d. Manage speed.
- (1) Control speed on slippery surfaces.
 - (a) Decrease speed.
 - (b) Downshift or decelerate.
 - (c) Reach speed of approximately one-third less than posted limits.
 - (d) On snow, reduce speed by approximately half of posted speed limit.
 - (e) Make slight, gradual steering motions.
 - (f) When braking, do not lock the wheels.
 - (g) Maintain adequate following distance for weather conditions.
 - (2) Control speed when exiting an interstate highway.
 - (a) Signal intention to exit well in advance.

- (b) Slow to appropriate speed for exiting the highway. (The posted speed limit is for cars; trucks generally must slow down 10 to 15 MPH less than the posted speed limit.)
 - (c) Downshift or brake to decelerate.
 - (d) Steer gradually in the direction of the exit ramp.
 - (e) Follow outside of the curve.
 - (f) Make gradual steering adjustments.
 - (g) Prepare to stop at the bottom of the exit.
- (3) Control speed when descending an incline.
- (a) Shift transmission into a lower gear before starting downgrade.
 - (b) Check brakes before starting the downgrade.
 - (c) Pay attention to signs indicating location of escape ramps.
 - (d) Use steady, light, continuous pressure on the brake pedal.
 - (e) Use pull off if braking power diminishes and allow brakes to cool.
- (4) Control speed in heavy traffic.
- (a) Maintain proper following distance.
 - (b) Stay within legal speed limits.
 - (c) Try to maintain same speed as the surrounding traffic.
 - (d) If following distances are decreased, back off to allow gap increase.
 - (e) Stay to the right, if necessary.
- e. Monitor for hazards.
- (1) Monitor the roadway to detect hazards.
- (a) Scan 12 to 15 seconds ahead frequently; anticipate problems.

- (b) Be aware of work zones.
- (c) Be aware of uneven pavement and pavement drop offs.
- (d) Be aware of foreign objects in the road, such as mufflers and debris.
- (e) Monitor activities alongside the road, such as stores, shopping areas, and stopped or disabled vehicles.
- (f) Be aware of inappropriate braking of vehicles ahead (brakes locked or continuously riding the brakes).
- (g) Be aware of sudden swerving of vehicles ahead:
 - Reduce speed.
 - Maintain firm grip on the steering wheel.
 - Take evasive action, steer left or right, countersteer, or brake.

(2) Observe the driver of the vehicle ahead who is confused or not paying full attention.

- (a) Slow down.
- (b) Attempt to pass, if possible. Initiate turn signal and check mirror.
- (c) Steer gradually to the passing lane.
- (d) Pass as quickly as possible; maintain extra distance from the vehicle.
- (e) Initiate turn signal; check mirrors.
- (f) Steer gradually to the original lane.
- (g) Cancel turn signal.
- (h) If unable to pass, back off and stay well behind.

(3) Observe shoppers/pedestrians in the area.

- (a) Increase visual scanning; check mirrors.

- (b) Slow down.
 - (c) Be prepared to stop suddenly.
 - (d) Distance the vehicle from curbs.
 - (e) Be aware of pedestrians emerging from between parked cars.
- (4) Observe slow driver ahead.
- (a) Apply brakes or downshift.
 - (b) Initiate turn signals; check mirrors.
 - (c) Pass vehicle, if possible.
 - (d) If unable to pass, maintain adequate following distance, back off, and stay well behind.
- (5) Detect roadway obstructions (posted).
- (a) Frequently scan roadway ahead.
 - (b) Cue in on signs that may indicate detours, work zones, and so forth.
 - (c) Check posted load/speed limit for tunnels and bridges.
 - (d) Check for overhead clearance indications.
 - (e) Slow vehicle to appropriate speed.
 - (f) Check mirrors for vehicles alongside or following.
 - (g) Steer towards center of the lane, if clear.
 - (h) Maintain adequate clearance distance from other vehicles.
- (6) Observe a vehicle on the shoulder with the hood up.
- (a) Scan area for pedestrians.
 - (b) Scan inside of vehicle to determine status of occupants.
 - (c) Initiate signal.

- (d) Check mirrors for passing vehicles or vehicles alongside.
- (e) Reduce speed by deceleration, downshifting, or braking.
- (f) Steer gradually into left lane, or on two-lane roads, steer to the left side of the occupied lane.

f. Maneuver in emergencies.

(1) Observe an oncoming car encroaching into the driver's lane.

- (a) Hit horn or flash lights to alert oncoming vehicle.
- (b) Move to the right, if possible (two-lane road).
- (c) Check mirrors for vehicles to the side and approaching from the rear, and if possible or necessary, steer to the right (four-lane road).
- (d) Do not brake while turning, but lift foot from the accelerator pedal.
- (e) If it is necessary to leave the road, follow these steps:
 - Avoid braking. If braking is necessary, brake gently to avoid skidding.
 - Keep one set of wheels on the pavement.
 - Stay on the shoulder, if possible.
 - Turn sharply enough to get back on the road safely.

(2) Notice an animal walking in the road at night.

- (a) Immediately slow vehicle.
- (b) Brake/downshift.
- (c) Flash lights.
- (d) Sound horn.
- (e) Turn lights off momentarily if animal is fixated on headlights.

(f) Move away from lane animal was/is in, if possible.

(g) Stop vehicle, if necessary.

(h) If all the above fails, assess options:

- Leave the road.
- Or hit the animal.
- Or hit another vehicle.

(3) Vehicle has a tire blowout while operating at highway speeds.

(a) Grasp the steering wheel firmly.

(b) Accelerate immediately to keep the momentum of the vehicle in a straight line.

(c) Check the mirrors for vehicle to the sides and rear.

(d) Initiate signal.

(e) Decelerate and progressively downshift transmission to slow the vehicle.

(f) Gradually steer vehicle to the shoulder.

(g) Avoid braking, but you may brake very gently if necessary.

(h) Pull vehicle onto the shoulder as far from traffic as possible.

(i) Set four-way flashers.

(j) Set out warning reflectors and change tire.

g. Conduct skid control and recovery.

(1) If you encounter a skidding condition as a result of overacceleration--

(a) When you detect the rear of the vehicle is sliding, remove your foot from the accelerator.

(b) Steer the vehicle gently in the direction the rear of the vehicle is skidding.

(c) When vehicle has straightened, use intermittent controlled braking to slow vehicle.

(2) If you encounter a skidding condition as a result of overbraking--

(a) Release brake pedal pressure to release locked brakes.

(b) When vehicle wheels are rolling, use controlled braking to reduce speed.

(c) Steer in the intended direction of travel.

(3) If you encounter a skidding condition as a result of oversteering--

(a) Remove your foot from the accelerator.

(b) Countersteer.

(c) Once control is gained, steer in the intended direction of travel.

h. Explain to the students that they will be required to perform before-, during-, and after-operation PMCS on their assigned vehicle.

i. Demonstrate hand and arm signals required for this exercise.

j. Explain ground guide safety precautions for backing the vehicle. (During training, ground guides are required for backing in the motor pool and training areas.)

3. Practical exercise:

a. Assign students to vehicles and issue vehicle operator's manuals, pencils, DA Form 2404, DD Form 1970, and equipment records folder. Instruct students on the location of rags, lubricants, and coolant.

b. Students perform before-operation PMCS.

c. Students practice driving the vehicle on the road (primary and secondary). During-operation PMCS is also conducted at this time.

NOTE: As each student practices driving, an assistant instructor rides in the right front seat. The other two students will ride in the rear seats or troop seats and rotate driving duties. The assistant instructor explains driving techniques, ensures the driver is aware of driving situations, and conducts after-action reviews with each driver. Now is the time to pass on valuable experience and correct any bad driving habits.

d. Students perform after-operation PMCS and ensure all operator entries required on DA Form 2404 and DD Form 1970 are accurate, complete, and legible.

4. Evaluation: Check each student's performance of PMCS and driving.

5. Summary:

a. Recap main points.

b. Allow for questions.

c. Clarify questions.

d. Give closing statement.

6. Retraining: Retrain No-Gos and slow learners. Students perform driving tasks daily and are tested on the end of course comprehensive test.

E. SAFETY RESTRICTIONS.

1. Ensure all chock blocks (if required) are in place when vehicles are parked.

2. Ensure students remove all jewelry and identification tags before performing PMCS.

3. Ensure students pay particular attention to the cautions and warnings listed in the operator's manual.

4. Ensure the transmission is always placed in neutral (some automatics are placed in park), the parking brake is set, the engine is shut off, and the ignition key is removed (if equipped) before leaving the vehicle.

5. Ensure a safe following distance and speed are maintained when driving in the training area (as determined by the local command).

6. Ensure all occupants wear seat belts (if equipped) while vehicle is in operation.

7. Ensure ground guide(s) is used when backing vehicles during training.

F. ADDITIONAL COMMENTS AND INFORMATION. Recommended instructional time is 12 hours (1.0 conference, 1.0 demonstration, and 11.0 practical exercise, including 1.5 PMCS).

LESSON TITLE: BACK AND PARK A VEHICLE

TASK NUMBER: 551-721-1365 (Drive Vehicle with Manual Transmission) and 551-721-1366 (Drive Vehicle with Automatic Transmission)

A. TRAINING OBJECTIVE.

TASK: Back and park a vehicle.

CONDITIONS Given DD Form 1970, DA Form 2404, pencil, appropriate operator's manual, equipment records folder, rags, lubricants, coolant, suitable training area, a wheeled vehicle with BII, and ground guides.

STANDARD: Without causing damage to the vehicle, physical surrounding, or injury to personnel, back and park a vehicle.

B. INTERMEDIATE TRAINING. None.

C. ADMINISTRATIVE INSTRUCTIONS.

1. Training time: As scheduled.
2. Training location: Motor pool and training area as scheduled.
3. Training type: Demonstration and practical exercise.
4. Students: Personnel as scheduled.
5. Principal and assistant instructors required: One primary instructor, one assistant instructor for each three students for the demonstration, and one assistant instructor for each three students for the practical exercise.
6. Training aids and equipment: Rags, lubricants, coolant, 40 traffic cones or empty POL drums, DA Form 2404, DD Form 1970, pencil, appropriate vehicle operator's manual, equipment records folder, and a wheeled vehicle with BII for each three students.
7. References: Appropriate vehicle operator's manual, FM 21-60, and FM 21-305.

D. SEQUENCE OF ACTIVITY.

1. Introduction:
 - a. Interest device.

- b. Tie-in.
- c. Lesson objective (paragraph A).
- d. Procedures:
 - (1) Explanation.
 - (2) Practical exercise.
 - (3) Summary.

2. Explanation and demonstration:

a. General rules for backing safely. Since the driver cannot see directly behind his vehicle, backing is always a dangerous maneuver. Common sense therefore dictates that backing be avoided whenever possible. For example, if the vehicle must be parked, the driver parks so that he will be able to pull forward when leaving. Even though planning ahead can reduce the need to back, almost everyone who drives will have to back on occasion. These four simple rules will help you to back safely:

- Inspect your intended path.
- Back and turn toward the driver's side.
- Use four-way flashers and horn.
- Use ground guide(s).

(1) Inspect your path. Whether backing in a straight line or backing and turning, inspect the line of travel before beginning to back. Get out and walk around the vehicle. Check the clearance in or near the path the vehicle will take. Also, make sure the road, parking, or docking area will be able to support the vehicle.

(2) Back and turn toward the driver's (sight) side. You will have a better view of what you are doing, and you will avoid the dangers brought about by backing to the passenger's (blind) side. If you back toward your side, you can watch the rear of the vehicle by looking out the side window and by using the left mirror. You cannot see as much in the right side mirror because you are farther away from it.

(3) Use four-way flashers and horn. Always turn on the four-way flashers before backing. If the vehicle is not equipped with a back-up alarm, make periodic, gentle taps on the electric horn (if it is safe and legal to do so).

(4) Use ground guide(s). It is always best to use a ground guide or guides to help back because the driver cannot see behind the vehicle and other blind spots in the mirrors. A ground guide is essential in blind side backing, but the driver is still responsible. Ground guide safety procedures are in the appendix. FM 21-305 gives detailed ground guide instructions. Before backing, the driver and ground guide(s) must know the correct arm and hand signals (see FM 21-60 or FM 21-305).

WARNING

When backing up or going forward, ground guides should never stand directly in the path of the vehicle. Keep 10 yards between the vehicle and ground guides front or rear and to the corners of the vehicle, never directly behind the vehicle. Ground guides will not position themselves between the vehicle being guided and another object where an inadvertent engine surge or momentary loss of vehicle control could cause injury. Drivers of vehicles will immediately stop their vehicles if they lose sight of ground guides or note that the guide is dangerously positioned between the vehicle and another object. Drivers of vehicles in such cases will secure their vehicle, dismount, and make an on-the-spot correction before commencing operations.

b. General backing procedures. There are four general procedures that should be followed in backing:

- Start in the proper position.
- Back slowly.
- Constantly check behind the vehicle.
- Start over when necessary.

(1) Start in the right position. Position the vehicle properly before attempting a backing maneuver. Starting from any but the right spot makes the task more difficult or even impossible. The proper position is reached by moving the vehicle forward. When the vehicle is in the right position, stop, secure it, get out, and check the positioning from all angles.

(2) Back slowly. Use the lowest reverse gear and back slowly. Be patient. If possible, do not use the accelerator; move in idle speed. Do not ride the clutch (manual transmissions).

(3) Constantly check behind the vehicle. Use both mirrors or ground guides (if available). If necessary, periodically get out of the vehicle and check the vehicle path.

(4) Start over when necessary. If the vehicle gets out of position, pull forward and realign it with the desired path of travel. It is better to pull forward in these situations rather than to fight it by continuing to back.

c. Arm and hand signals. Demonstrate the arm and hand signals required for this exercise.

d. Ground guide safety precautions. Explain ground guide safety precautions for backing.

e. Demonstration. Demonstrate backing and parking:

(1) Straight line.

(2) Parallel parking (sight side and blind side).

3. Practical exercise:

a. Assign students to vehicles and issue vehicle operator's manual, pencil, DA Form 2404, DD Form 1970, and equipment records folder. Instruct students on the location of rags, lubricants, and coolant.

b. Students perform before-operation PMCS.

c. Students practice backing and parking the vehicle through the courses laid out in the training area. (Sample training areas are at Chapter 6, Figures 6-6 through 6-8.) During-operation PMCS is also conducted at this time.

NOTE: The success of the driver training program is the ability of the instructors to get in the cab of the truck with the student driver and pass on valuable experience and techniques. Now is the time to correct any bad driving habits.

d. Students perform after-operation PMCS and ensure all operator entries required on DA Form 2404 and DD Form 1970 are accurate, complete, and legible.

4. Evaluation: Check each student's performance of PMCS, backing, and parking.

5. Summary:

a. Recap main points.

b. Allow for questions.

c. Clarify questions.

d. Give closing statement.

6. Retraining: Retrain No-Gos and slow learners.

E. SAFETY RESTRICTIONS.

1. Ensure all chock blocks (if required) are in place when vehicles are parked.

2. Ensure students remove all jewelry and identification tags before performing PMCS.

3. Ensure students pay particular attention to the cautions and warnings listed in the operator's manual.

4. Ensure the transmission is always placed in neutral (some automatics are placed in park), the parking brake is set, the engine is shut off, and the ignition key is removed (if equipped) before leaving the vehicle.

5. Ensure a safe following distance and speed are maintained when driving in the training area (as determined by the local command).

6. Ensure all occupants wear seat belts (if equipped) while vehicle is in operation.

7. Ensure ground guide(s) is used when backing vehicles during training.

F. ADDITIONAL COMMENTS AND INFORMATION. Recommended instructional time is 4 hours (.5 demonstration and 3.5 practical exercise, including .5 PMCS).

LESSON TITLE: DRIVE VEHICLE AT NIGHT

TASK NUMBER: 551-721-1365 (Drive Vehicle with Manual Transmission) and 551-721-1366 (Drive Vehicle with Automatic Transmission)

A. TRAINING OBJECTIVE.

TASK: Drive vehicle at night.

CONDITIONS Given instruction, DA Form 2404, DD Form 1970, pencil, appropriate vehicle operator's manual, equipment records folder, rags, lubricants, coolant, improved road surfaces, and a wheeled vehicle with BII.

STANDARD: Without accident or injury, drive the designated route at night with headlights: use defensive driving (accident avoidance) methods, operate the light switch, read gauges, upshift and downshift the transmission, manipulate the controls, use correct braking procedures, and perform basic driving maneuvers.

B. INTERMEDIATE TRAINING. None.

C. ADMINISTRATIVE INSTRUCTIONS.

1. Training time: As scheduled.
2. Training location: Motor pool and driver training route (built-up and rural areas) as scheduled.
3. Training type: Conference and practical exercise.
4. Students: Scheduled personnel.
5. Principal and assistant instructors required: One primary instructor for the conference and one assistant instructor for each three students for the practical exercise.
6. Training aids and equipment: Rags, lubricants, coolant, DA Form 2404, DD Form 1970, pen or pencil, appropriate vehicle operator's manual, equipment records folder, and a wheeled vehicle with BII for each three students.
7. References: FM 21-305 and appropriate vehicle operator's manual.

D. SEQUENCE OF ACTIVITY.

1. Introduction:

- a. Interest device.
- b. Tie-in.
- c. Lesson objective (paragraph A).
- d. Procedures:
 - (1) Explanation.
 - (2) Practical exercise.
 - (3) Summary.

2. Explanation and demonstration:

a. Night driving factors.

(1) Driver factors:

(a) Vision. The driver has limited vision at night because--

- Eyes need time to adjust to the change between light and darkness.
- Drivers cannot see as sharply at night.
- Drivers cannot see to the sides as well at night.

(b) Glare. Temporary blindness is caused by glare, normally from oncoming headlights but sometimes from other lights.

(c) Fatigue. Fatigue reduces the ability to see clearly. The driver becomes less alert and slower to see hazards and therefore does not react as promptly.

(d) Driver inexperience. Newness to driving, coupled with the problems of reduced vision, glare, and fatigue account for the fact new drivers have higher nighttime accident rates than more experienced drivers.

(2) Roadway factors:

(a) Low illumination. Illumination provided by street lights is often only fair to poor. On most roads, the only illumination is

from the driver's headlights. Headlights are useful for a relatively short and narrow path directly ahead of the vehicle. However, headlights do not bend around corners.

(b) Variation in illumination. The driver must constantly adjust his eyes to different types and degrees of lighting. Flashing lights distract as much as they illuminate. Traffic signs are hard to see against the background of other lights, especially in towns and cities.

(c) Familiarity with roads. The driver needs to be particularly alert on roads that he has never driven during the day. Also, on familiar roads, drivers tend to be overconfident. This is dangerous because--

- The view of the roadway is not the same.
- Situations on some stretches will change.

(d) Other road users. The driver must adjust his driving to hazards such as pedestrians, joggers, bicyclists, and animals.

(e) Drinking drivers. The likelihood of encountering drunken drivers increases after sundown. Be especially alert when driving near roadside taverns and similar attractions.

(3) Vehicle factors:

(a) Headlights. Sight distance is limited to the range of the headlights. Therefore, the driver must drive at a speed that allows him to stop within his sight distance.

(b) Auxiliary lights. Trucks are better seen at night by other drivers when reflectors, marker lights, clearance lights, taillights, and brake lights are clean and working properly.

(c) Turn signals. The ability to communicate with other drivers depends on turn signals. Nonfunctional or dirty turn signal lights greatly increase the risk of an accident.

(d) Windshields and wipers. A clean windshield and properly working wipers are necessary for safe driving.

(e) Mirrors. Mirrors help the driver see what is going on around him. Keep them clean and properly adjusted.

b. Night driving procedures.

(1) Preparing to drive at night:

(a) Get yourself ready.

- If you wear glasses, be sure they are clean.
- Remove sunglasses.
- Be well rested.

(b) Plan your route.

- Know the location of rest stops.
- Plan for hazards, such as unlighted areas, exit ramps, construction areas, and other changes in the highway environment.

(c) Get the vehicle ready.

- Ensure windshield, mirrors, lights, and reflectors are clean.
- Ensure all lights are operational.

(2) Driving at night:

(a) Avoid blinding others:

- Dim high beams when oncoming vehicles are less than 500 feet away.
- Do not use high beams to retaliate against other drivers.

(b) Avoid glare:

- Set interior panel lights at the lowest setting to reduce glare.
- Look to the right when oncoming vehicles are using high beams.

(c) Maximize visibility:

- Use low beams when desired visual range is about 250 feet.

- Use high beams when there are no oncoming vehicles and desired visual range is 350 to 500 feet.

(d) Adjust basic driving techniques:

- Exercise additional caution because of reduced vision.
- Signal earlier than during daylight to give other drivers more time to react.

3. Practical exercise:

a. Assign students to vehicles and issue vehicle operator's manual, pencil, DA Form 2404, DD Form 1970, and equipment records folder. Instruct students on the location of rags, lubricants, and coolant.

b. Students perform before-operation PMCS to include the operation and cleanliness of all lights.

c. Students drive the designated route. During-operation PMCS is conducted at this time.

NOTE: As each student practices driving, an assistant instructor rides in the right front seat. The other two students will ride in the rear seats or troop seats and rotate driving duties. The assistant instructor explains driving techniques, ensures the driver is aware of driving situations, and conducts after-action reviews with each driver. Now is the time to pass on valuable experience and correct any bad driving habits.

d. Students perform after-operation PMCS and ensure all operator entries required on DA Form 2404 and DD Form 1970 are accurate, complete, and legible.

4. Evaluation: Check each student's performance of PMCS and night driving.

5. Summary:

- a. Recap main points.
- b. Allow for questions.
- c. Clarify questions.
- d. Give closing statement.

6. Retraining: Retrain No-Gos and slow learners.

E. SAFETY RESTRICTIONS.

1. Ensure all chock blocks (if required) are in place when vehicles are parked.
2. Ensure students remove all jewelry and identification tags before performing PMCS.
3. Ensure students pay particular attention to the cautions and warnings listed in the operator's manual.
4. Ensure the transmission is always placed in neutral (some automatics are placed in park), the parking brake is set, the engine is shut off, and the ignition key is removed (if equipped) before leaving the vehicle.
5. Ensure a safe following distance and speed are maintained when driving on the designated route (as determined by the local command).
6. Ensure all occupants wear seat belts (if equipped) while vehicle is in operation.
7. Ensure ground guide(s) is used when backing vehicles during training.

F. ADDITIONAL COMMENTS AND INFORMATION. Recommended instructional time is 5 hours (.5 conference and 4.5 practical exercise, including 1.0 PMCS).

CHAPTER 5

ADDITIONAL SUBJECTS - LESSON OUTLINES

LESSON TITLE: DRIVE A VEHICLE WITH BALANCED (PINTLE-CONNECTED) TRAILER

TASK NUMBER: 551-721-1380 (Transport General Cargo in Trailer) and 551-721-1385 (Couple/Uncouple Pintle-Connected Trailer)

A. TRAINING OBJECTIVE.

TASK: Drive a vehicle with balanced (pintle-connected) trailer.

CONDITIONS Given instruction, DD Form 1970, DA Form 2404, pencil, vehicle operator's manual, trailer operator's manual, equipment records folder, rags, lubricants, coolant, a suitable training area, a trailer, and a wheeled vehicle with BII.

STANDARD: Without accident or injury, drive the designated route, connect and disconnect the trailer, back the trailer (in a straight line), and perform basic driving maneuvers.

B. INTERMEDIATE TRAINING. None.

C. ADMINISTRATIVE INSTRUCTIONS.

1. Training time: As scheduled.
2. Training location: Motor pool, training area, and driver training route.
3. Training type: Conference, demonstration, and practical exercise.
4. Students: Scheduled personnel.
5. Principal and assistant instructors required: One primary instructor for the conference and one assistant instructor for each three students for the demonstration and practical exercise.
6. Training aids and equipment: Rags, lubricants, coolant, DA Form 2404, DD Form 1970, pencil, 40 traffic cones or empty POL drums, vehicle operator's manual, trailer operator's manual, equipment records folder, and a trailer and a wheeled vehicle with BII for each three students.
7. References: FM 21-305, trailer operator's manual, and vehicle operator's manual.

D. SEQUENCE OF ACTIVITY.

1. Introduction:
 - a. Interest device.
 - b. Tie-in.
 - c. Lesson objective (paragraph A).
 - d. Procedures:
 - (1) Explanation.
 - (2) Practical exercise.
 - (3) Summary.
2. Explanation and demonstration:

NOTE: The instructions contained in this lesson outline for a balanced (pintle-connected) trailer are in general terms because this lesson covers a variety of trailers. Although procedures for these type trailers are similar, the instructor should consult the specific trailer operator's manual for detailed instructions.

- a. Connect the trailer to the vehicle.
 - (1) Sound the horn before backing, and using ground guide(s), back the vehicle to the trailer ensuring no one stands between the vehicle and the trailer.
 - (2) Stop the vehicle, engage the parking brake, shut off the engine, and get out of the vehicle to connect the trailer.
 - (3) Lift the trailer. (Some trailers are light and can be lifted by one person, while others will require several people, and still others have a mechanical lift.) Secure the trailer lunette in the pintle of the towing vehicle. Secure the pintle, and install the pintle safety cotter pin in the pintle.
 - (4) Hook the two safety chains from the trailer to the rear lifting shackles of the towing vehicle.
 - (5) Release the trailer hand brake lever.
 - (6) Raise the retractable support (landing leg).

(7) Connect the intervehicular brake hoses to the towing vehicle, and turn on the air supply.

(8) Connect the intervehicular electrical cable to the towing vehicle.

(9) Check the brake action and operation of all lights by operating the controls in the towing vehicle.

b. Disconnect the trailer from the vehicle.

(1) Position the trailer on level ground, if possible.

(2) Apply the trailer hand brake or chock wheels to prevent movement of the trailer.

(3) Disconnect the intervehicular brake hoses, and stow on the bracket provided on the trailer.

(4) Lower the retractable support (landing leg).

(5) Unhook the safety chains and lunette from the towing vehicle.

(6) Secure the pintle, and reinstall the pintle safety cotter pin in the pintle.

(7) Level trailer, if required.

c. Drive the towing vehicle and trailer. Keep in mind the overall length of the towing vehicle and trailer when passing other vehicles and turning. Backing is also affected because the unit is hinged in the middle.

(1) Safely towing a trailer requires increased concentration, alertness, and strict compliance with towing speeds.

(2) Trailers have a tendency to fishtail or swerve very easily when the driver makes an erratic movement of any magnitude. This can be caused by--

(a) Speed.

(b) A slight swerve to miss a pothole.

(c) A quick lane change.

(d) A slip of the hand on the steering wheel.

- (e) Rough or uneven road.
- (3) To prevent trailer fishtail or swerve--
- (a) Never exceed the recommended speed for the trailer that you are towing.
 - (b) Never exceed the trailer's maximum recommended weight capacity.
 - (c) Always slow down for curves, wet or rough road, or downgrades.
 - (d) Anticipate that all stops will take longer as a result of the added weight and brake early and gently. Do not slam on the brakes.
 - (e) On downgrades, slow down before starting downhill. Use a lower gear, and let the engine compression help slow the vehicle.
- (4) To correct trailer fishtail or swerve--
- (a) Steer straight ahead.
 - (b) Gradually decelerate.
 - (c) Do not brake until both the towing vehicle and trailer have stabilized.
- (5) When turning corners, allow for the fact that the trailer wheels turn inside the turning radius of the towing vehicle.
- (a) To make a right turn--
 - Check traffic ahead, to the rear, and to the right side.
 - If not in the right-hand lane, make sure that lane is clear, signal, and move into the lane well in advance of the turn.
 - Signal for the turn at least 150 feet in advance, and reduce speed.
 - Check other traffic that is in, at, or approaching the intersection. (Make sure there is no bicycle or motorcycle to the right, and be especially alert for pedestrians.)

- Take a position farther from the curb or edge of the pavement than the driver would if driving a straight truck.
 - Drive the towing vehicle about halfway into the intersection, and then cut sharply to the right. This will keep the trailer wheels off the curb.
 - Keep the vehicle close enough to the edge of the road to prevent following vehicles from attempting to pass on the right.
 - If swinging wide to the left or oncoming lane, watch oncoming vehicles.
 - During the turn, monitor the mirrors for off-tracking.
 - Do not shift gears during the turn. Keep both hands on the steering wheel.
 - If unable to complete the turn, do not back up.
 - After completing the turn, cancel the signal.
 - When it is safe to do so, steer the vehicle into the desired lane (on four-lane roads).
- (b) To make a left turn--
- Check traffic ahead, to the rear, and to both sides.
 - Signal for the turn at least 150 feet in advance and reduce speed.
 - Check other traffic that is in, at, or approaching the intersection.
 - Ensure there is an adequate gap to make a turn in front of traffic.
 - Before turning, drive the towing vehicle into the center of the intersection to allow for the trailer.
 - Turn hard to the left and watch for oncoming traffic, if applicable.
 - During the turn, monitor the mirrors for off-tracking.

- Do not shift gears during the turn. Keep both hands on the steering wheel.
- After completing the turn, cancel the signal.
- When it is safe to do so, steer the vehicle into the desired lane (on four-lane roads).

(6) Stopping requires more distance when pulling a trailer. Apply brakes gradually and smoothly. Stepping on the brake pedal will stop both the towing vehicle and the trailer.

d. Back the trailer (in a straight line). Since the driver cannot see directly behind the vehicle, backing is always a dangerous maneuver. Avoid backing whenever possible, even if it involves going around the block. When backing, follow these rules:

- (1) Get out of the vehicle, and check the area to the sides, rear, and overhead for obstructions.
- (2) Use ground guide(s) to direct while backing, when possible.
- (3) Adjust the rear view mirrors before backing.
- (4) Sound the horn before backing where it is legal to do so.
- (5) Remember that when backing the rear of the trailer will move in the opposite direction from which the front towing vehicle wheels are turned.
 - (a) If the wheels are turned to the right, the trailer will go left.
 - (b) If the wheels are turned to the left, the trailer will go right.
- (6) Make gradual steering corrections in relation to trailer alignment.
- (7) Pull up, if necessary, to gain improved alignment of trailer.
- (8) Stop the vehicle when the desired position is achieved.

e. Explain to the students that they will be required to perform before-during-, and after-operation PMCS on their assigned vehicle.

f. Demonstrate hand and arm signals required for this exercise.

g. Demonstrate driving through each maneuver.

3. Practical exercise:

- a. Assign students to vehicles/trailers, and issue vehicle operator's manuals, trailer operator's manuals, pencils, DA Form 2404, DD Form 1970, and the equipment records folder. Instruct students on the location of rags, lubricants, and coolant.
- b. Students perform before-operation PMCS.
- c. Students practice maneuvering the vehicle through the courses laid out in the training area(s). (Sample training areas are at Chapter 6, Figures 6-2 through 6-5 and 6-8). They also conduct during-operation PMCS at this time.
- d. After the students have mastered driving the vehicle in the training area, they will practice driving on the road.

NOTE: As each student practices driving, an assistant instructor rides in the right front seat. The other two students will ride in the rear seats or troop seats and rotate driving duties. The assistant instructor explains driving techniques, ensures the driver is aware of driving situations, and conducts after-action reviews with each driver. Now is the time to pass on valuable experience and correct any bad driving habits.

- e. Students perform after-operation PMCS and ensure all operator entries required on DA Form 2404 and DD Form 1970 are accurate, complete, and legible.

4. Evaluation: Check each student's performance of PMCS and driving.

5. Summary:

- a. Recap main points.
- b. Allow for questions.
- c. Clarify questions.
- d. Give closing statement.

6. Retraining: Retrain No-Gos and slow learners.

E. SAFETY RESTRICTIONS.

1. Ensure all chock blocks (if required) are in place when vehicles are parked.

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2. Ensure the transmission is always placed in neutral (some automatics are placed in park), the parking brake is set, the engine is shut off, and the ignition key is removed (if equipped) before leaving the vehicle.

3. Ensure students remove all jewelry and identification tags before performing PMCS.

4. Ensure students pay particular attention to the cautions and warnings listed in the operator's manual.

5. Ensure ground guide(s) is used when backing the vehicle or trailer during training.

6. Ensure a safe following distance and speed are maintained when driving in the training area and the driver training route (as determined by the local command).

7. Ensure all occupants wear seat belts (if equipped) while vehicle is in operation.

F. ADDITIONAL COMMENTS AND INFORMATION. Recommended instructional time is 8 hours (.5 conference, .5 demonstration, and 7.0 practical exercise, including 1.0 PMCS).

LESSON TITLE: DRIVE A WHEELED VEHICLE IN A CONVOY

TASK NUMBER: 551-721-1359 (Drive Vehicle in a Convoy)

A. TRAINING OBJECTIVE.

TASK: Drive a wheeled vehicle in a convoy.

CONDITIONS Given instruction, a DD Form 1970, a DA Form 2404, a pencil, vehicle operator's manual, equipment records folder, rags, lubricants, coolant, a suitable training area, and a wheeled vehicle with BII.

STANDARD: Operate the vehicle in accordance with specific instructions of the march unit commander. Using defensive driving (accident avoidance) methods; maintain vehicle interval, obey highway warning and regulatory signs, interpret and relay all mechanical/hand signals correctly, and use correct braking procedures without accident or injury.

B. INTERMEDIATE TRAINING. None.

C. ADMINISTRATIVE INSTRUCTIONS.

1. Training time: As scheduled.
2. Training location: Motor pool and convoy route.
3. Training type: Conference and practical exercise.
4. Students: Scheduled personnel.
5. Principal and assistant instructors required: One primary instructor for the conference and one assistant instructor for each three students for the practical exercise.
6. Training aids and equipment: Rags, lubricants, and coolant, DA Form 2404, DD Form 1970, pencil, vehicle operator's manual, equipment records folder, convoy strip map, a wheeled vehicle with BII for each three students, convoy signs ("CONVOY AHEAD" and "CONVOY FOLLOWS"), convoy flags (blue, green, and black/white), and convoy control vehicles (minimum of two vehicles required). A communication system for the control vehicles is recommended.
7. References: FM 55-312, FM 21-305, and appropriate vehicle operator's manual.

D. SEQUENCE OF ACTIVITY.

1. Introduction:

- a. Interest device.
- b. Tie-in.
- c. Lesson objective (paragraph A).
- d. Procedures:
 - (1) Explanation.
 - (2) Practical exercise.
 - (3) Summary.

2. Explanation and demonstration:

- a. Give convoy safety briefing (see attached sample convoy commander's briefing).
- b. The students will be required to perform before-, during-, and after-operation PMCS on their assigned vehicle.
- c. Demonstrate hand and arm signals required for this exercise.

3. Practical exercise:

- a. Assign students to vehicles and issue vehicle operator's manuals, pencils, DA Form 2404, DD Form 1970, convoy strip map, and equipment records folder. Instruct students on the location of rags, lubricants, and coolant.
- b. Students perform before-operation PMCS.
- c. Students practice driving the vehicle on assigned convoy route. During-operation PMCS is conducted at this time.

NOTE: As each student practices driving, an assistant instructor rides in the right front seat. The other two students will ride in the rear seats or troop seats and rotate driving duties. The assistant instructor explains driving techniques, ensures the driver is aware of driving situations, and conducts after-action reviews with each driver. Now is the time to pass on valuable experience and correct any bad driving habits.

d. Students perform after-operation PMCS and ensure all operator entries required on DA Form 2404 and DD Form 1970 are accurate, complete, and legible.

4. Evaluation: Check each student's performance of PMCS and driving the vehicle in convoy.

5. Summary:

a. Recap main points.

b. Allow for questions.

c. Clarify questions.

d. Give closing statement.

6. Retraining: Retrain No-Gos and slow learners.

E. SAFETY RESTRICTIONS.

1. Ensure all chock blocks (if required) are in place when vehicles are parked.

2. Ensure the transmission is always placed in neutral (some automatics are placed in park), the parking brake is set, the engine is shut off, and the ignition key is removed (if equipped) before leaving the vehicle.

3. Ensure students remove all jewelry and identification tags before performing PMCS.

4. Ensure students pay particular attention to the cautions and warnings listed in the operators manual.

5. Ensure ground guide(s) is used when backing the vehicle during training.

6. Ensure a safe following distance and speed are maintained when driving on the convoy route (as determined by the local command).

7. Ensure all occupants wear seat belts (if equipped) while the vehicle is in operation.

8. Ensure no one walks between vehicles parked in a column.

F. ADDITIONAL COMMENTS AND INFORMATION. Recommended instructional time is 5 hours (.5 conference and 4.5 practical exercise, including 1.0 PMCS).

SAMPLE CONVOY COMMANDER'S BRIEFING

1. Always follow civilian and military police instructions when given.
2. Use only truck parking areas on controlled access highways.
3. Make only emergency halts on the roadside of controlled access highways.
4. Do not stand on the traffic side of a convoy during halts on conventional highways.
5. Perform vehicle operation maintenance and check cargo security at every halt.
6. Move vehicles off of the highway before beginning maintenance.
7. Have reflectors and warning devices in place before beginning maintenance.
8. Use warning lights during periods of darkness or reduced visibility.
9. Begin convoy movement only at the convoy commander's signal.
10. Vehicle speed restrictions: as determined by the local commander.
11. Vehicle intervals (minimums):
 - a. Controlled access highway - 200 yards.
 - b. Rural conventional highway - 150 yards.
 - c. Urban conventional highway - 50 yards.
12. Maintain a close interval until reaching main convoy route.
13. Use the acceleration lane, when available, to reach convoy speed.
14. Gradually attain the proper vehicle interval once on the main convoy route.
15. In the case of an accident, the main column does not stop to provide assistance. The next following vehicle provides immediate assistance to the accident vehicle.
16. If an accident occurs to a vehicle ahead, make the maximum effort to clear traffic lanes.
17. Operate all vehicles with headlights on at all times.
18. Use warning devices correctly.
19. Add any additional comments as local conditions warrant.

LESSON TITLE: DRIVE A WHEELED VEHICLE IN A CONVOY UNDER BLACKOUT CONDITIONS

TASK NUMBER: 551-721-1363 (Drive Vehicle in Blackout Conditions)

A. TRAINING OBJECTIVE.

TASK: Drive a wheeled vehicle in a convoy under blackout conditions.

CONDITIONS Given instruction, DD Form 1970, DA Form 2404, pencil, vehicle operator's manual, equipment records folder, rags, lubricants, coolant, a suitable training area, and a wheeled vehicle with BII.

STANDARD: Operate the vehicle in accordance with specific instructions of the march unit commander. Drive the designated convoy route at night using defensive driving (accident avoidance) methods, maintain vehicle interval, and operate the tactical light switch, including headlights and blackout drive without accident or injury.

B. INTERMEDIATE TRAINING. None.

C. ADMINISTRATIVE INSTRUCTIONS.

1. Training time: As scheduled.
2. Training location: Motor pool and convoy route.
3. Training type: Conference and practical exercise.
4. Students: Scheduled personnel.
5. Principal and assistant instructors required: One primary instructor for the conference and one assistant instructor for each three students for the practical exercise.
6. Training aids and equipment: Rags, lubricants, and coolant, DA Form 2404, DD Form 1970, pencil, vehicle operator's manual, equipment records folder, convoy strip map, a wheeled vehicle with BII for each three students, convoy signs ("CONVOY AHEAD" and "CONVOY FOLLOWS"), convoy flags (blue, green, and black/white), and convoy control vehicles (minimum of two vehicles required). A communication system for the control vehicles is recommended.
7. References: FM 55-312, FM 21-305, and appropriate vehicle operator's manual.

D. SEQUENCE OF ACTIVITY.

1. Introduction:
 - a. Interest device.
 - b. Tie-in.
 - c. Lesson objective (paragraph A).
 - d. Procedures:
 - (1) Explanation.
 - (2) Practical exercise.
 - (3) Summary.
2. Explanation and demonstration:
 - a. Demonstrate night convoy control signals, as listed in FM 21-305.
 - b. Demonstrate the operation of the tactical light switch for turning on/off headlights, blackout drive lights, and blackout marker lights.
 - c. Have three vehicles positioned with blackout drive lights on so the students can see the rear blackout marker and stop light at different distances:
 - (1) Too far - more than 180 feet.
 - (2) Proper distance - between 60 and 180 feet.
 - (3) Too close - less than 60 feet.
 - d. Give convoy safety briefing (see attached sample convoy commander's briefing).
3. Practical exercise:
 - a. Assign students to vehicles and issue vehicle operator's manual, pencils, DA Form 2404, DD Form 1970, convoy strip map, and equipment records folder. Instruct students on the location of rags, lubricants, and coolant.
 - b. Students perform before-operation PMCS to include the operation and cleaning of all lights.

- c. Students practice driving the vehicle first with headlights on and then under blackout conditions on the assigned convoy route. During-operation PMCS is conducted at this time.

NOTE: As each student practices driving, an assistant instructor rides in the right front seat. The other two students will ride in the rear seats or troop seats and rotate driving duties. The assistant instructor explains driving techniques, ensures the driver is aware of driving situations, and conducts after-action reviews with each driver. Now is the time to pass on valuable experience and correct any bad driving habits.

- d. Students perform after-operation PMCS and ensure all operator entries required on DA Form 2404 and DD Form 1970 are accurate, complete, and legible.

4. Evaluation: Check each student's performance of night driving both with headlights and blackout drive.

5. Summary:

- a. Recap main points.
- b. Allow for questions.
- c. Clarify questions.
- d. Give closing statement.

6. Retraining: Retrain No-Gos and slow learners.

E. SAFETY RESTRICTIONS.

1. Ensure all chock blocks (if required) are in place when vehicles are parked.
2. Ensure the transmission is always placed in neutral (some automatics are placed in park), the parking brake is set, the engine is shut off, and the ignition key is removed (if equipped) before leaving the vehicle.
3. Ensure students remove all jewelry and identification tags before performing PMCS.
4. Ensure students pay particular attention to the cautions and warnings listed in the operator's manual.
5. Ensure ground guide(s) is used when backing the vehicle during training.
6. Ensure a safe following distance and speed are maintained when driving on the convoy route (as determined by the local command).

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7. Ensure all occupants wear seat belts (if equipped) while vehicle is in operation.
8. Ensure no one walks between vehicles parked in a column.
9. Ensure ground guides and road guides wear reflective vests and carry filtered flashlights at night.

F. ADDITIONAL COMMENTS AND INFORMATION. Recommended instructional time is 5 hours (.5 conference and 4.5 practical exercise, including 1.0 PMCS).

SAMPLE CONVOY COMMANDER'S BRIEFING

1. Always follow civilian and military police instructions when given.
2. Use only truck parking areas on controlled access highways.
3. Make only emergency halts on the roadside of controlled access highways.
4. Do not stand on the traffic side of a convoy during halts on conventional highways.
5. Perform vehicle operation maintenance and check cargo security at every halt.
6. Move vehicles off of the highway before beginning maintenance.
7. Have reflectors and warning devices in place before beginning maintenance.
8. Use warning lights during periods of darkness or reduced visibility.
9. Begin convoy movement only at the convoy commander's signal.
10. Vehicle speed restrictions: as determined by the local commander.
11. Vehicle intervals (minimums):
 - a. Controlled access highway - 200 yards.
 - b. Rural conventional highway - 150 yards.
 - c. Urban conventional highway - 50 yards.
 - d. Blackout conditions - 60 to 180 feet.
12. Maintain close interval until reaching the main convoy route.
13. Use the acceleration lane, when available to reach convoy speed.
14. Gradually attain proper vehicle interval once on the main convoy route.
15. In case of an accident, the main column does not stop to provide assistance. The next following vehicle provides immediate assistance to the accident vehicle.
16. If an accident occurs to a vehicle ahead, make the maximum effort to clear traffic lanes.
17. Operate all vehicles with headlights on at all times (except during blackout conditions).
18. Use warning devices correctly.
19. Add any additional comments as local conditions warrant.

CHAPTER 6

SAMPLE TRAINING AREAS

This chapter shows the sample training areas for light vehicles. The figures in this chapter depict light vehicles as follows:

- Figure 6-1, light vehicle serpentine course.
- Figure 6-2, light vehicle stopping within prescribed limit.
- Figure 6-3, light vehicle offset alley.
- Figure 6-4, light vehicle right/left turns.
- Figure 6-5, light vehicle diminishing clearance.
- Figure 6-6, light vehicle parallel parking (blind side).
- Figure 6-7, light vehicle parallel parking (sight side).
- Figure 6-8, light vehicle straight line backing.

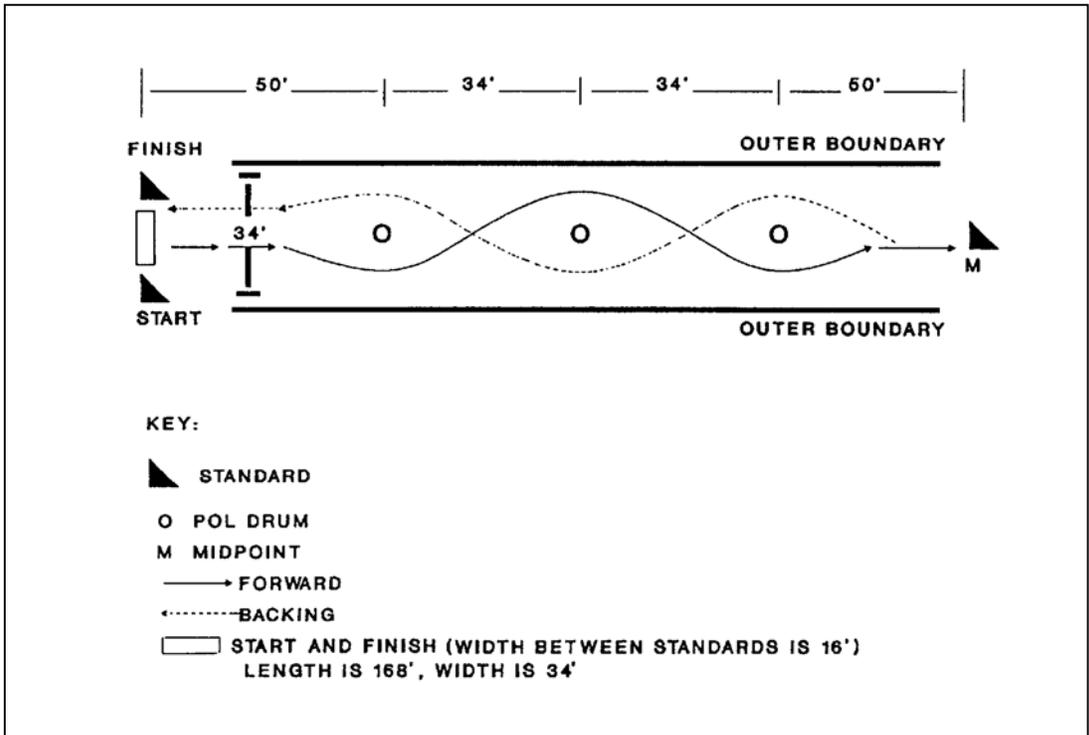


Figure 6-1. Light Vehicle Serpentine Course.

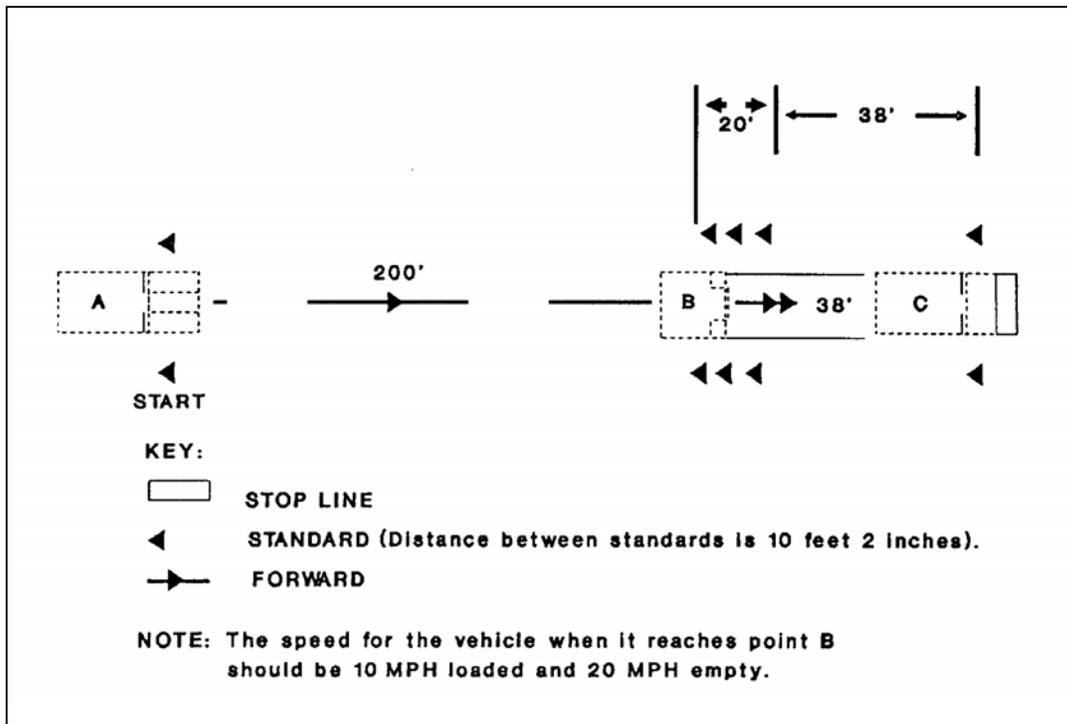


Figure 6-2. Light Vehicle Stopping Within Prescribed Limit.

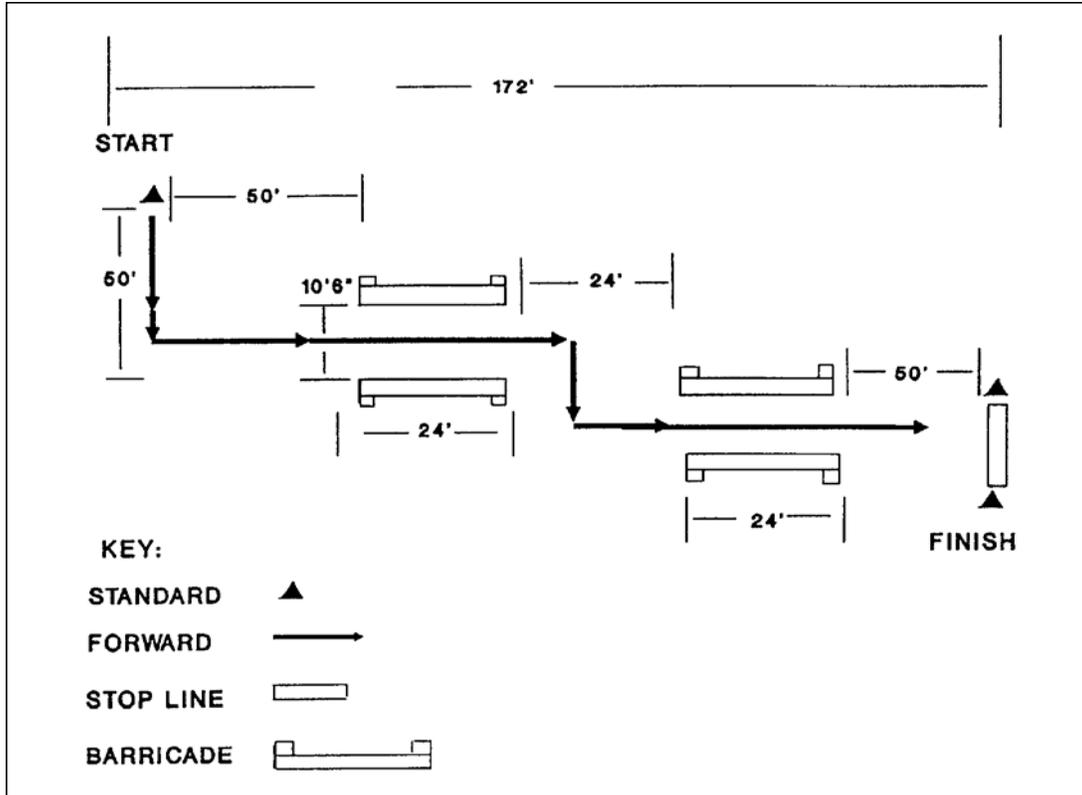


Figure 6-3. Light Vehicle Offset Alley.

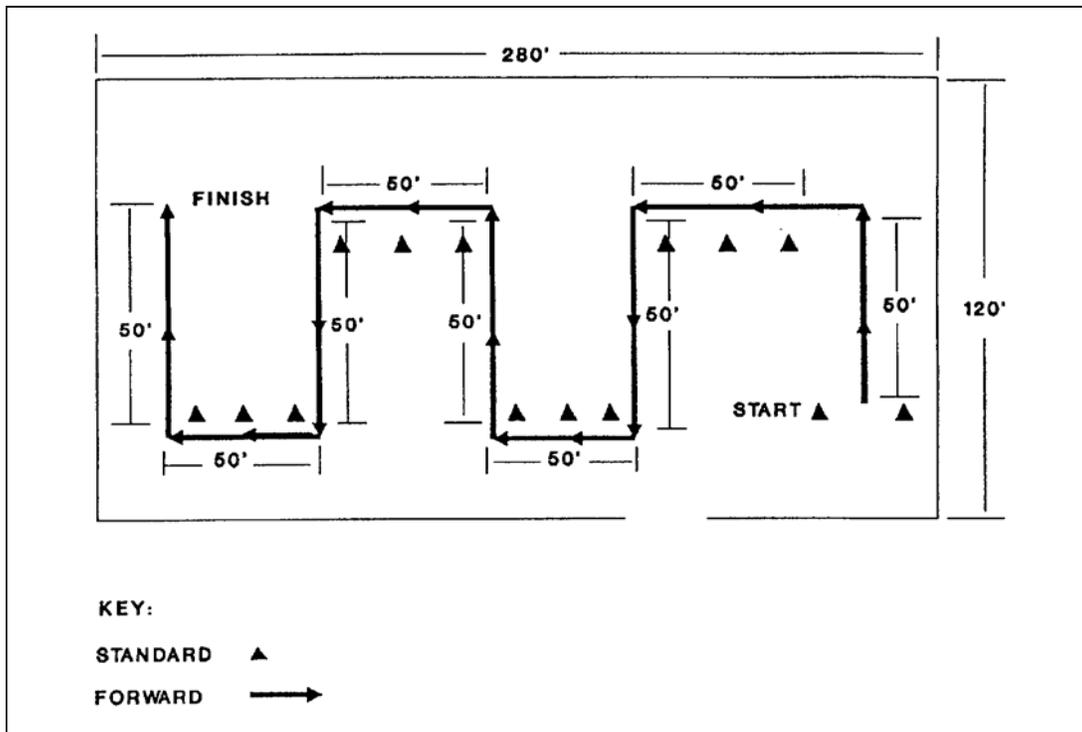


Figure 6-4. Light Vehicle Right/Left Turns.

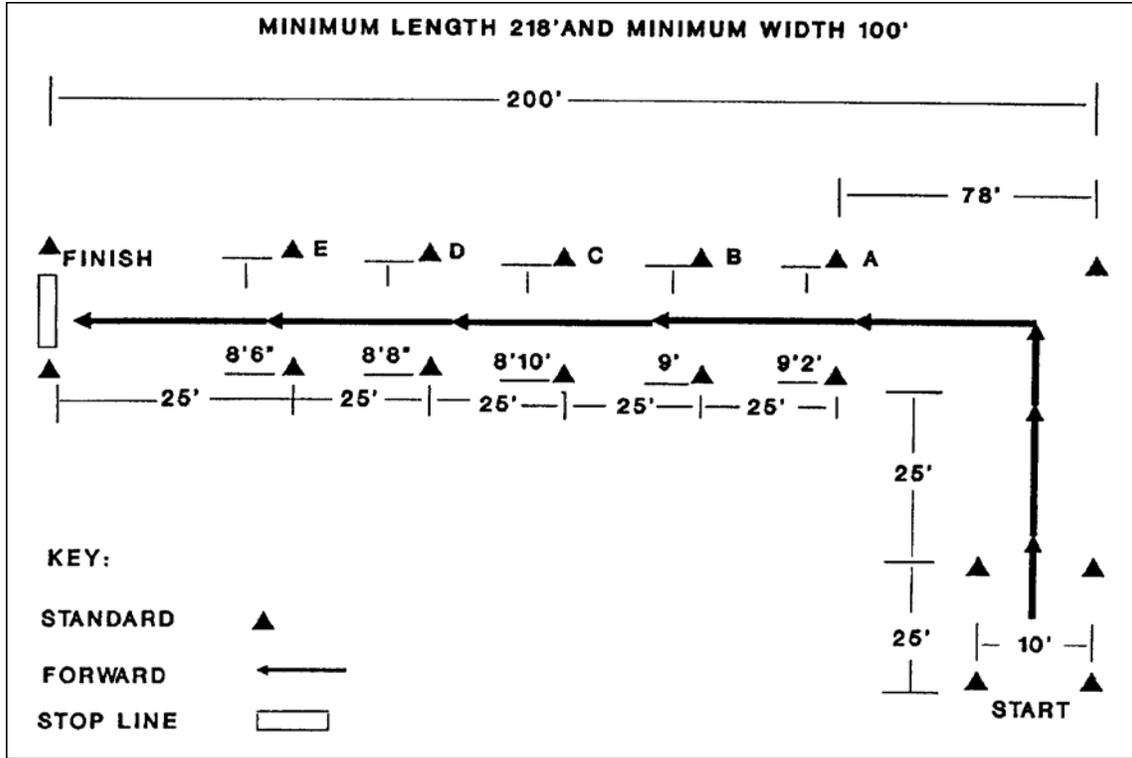


Figure 6-5. Light Vehicle Diminishing Clearance.

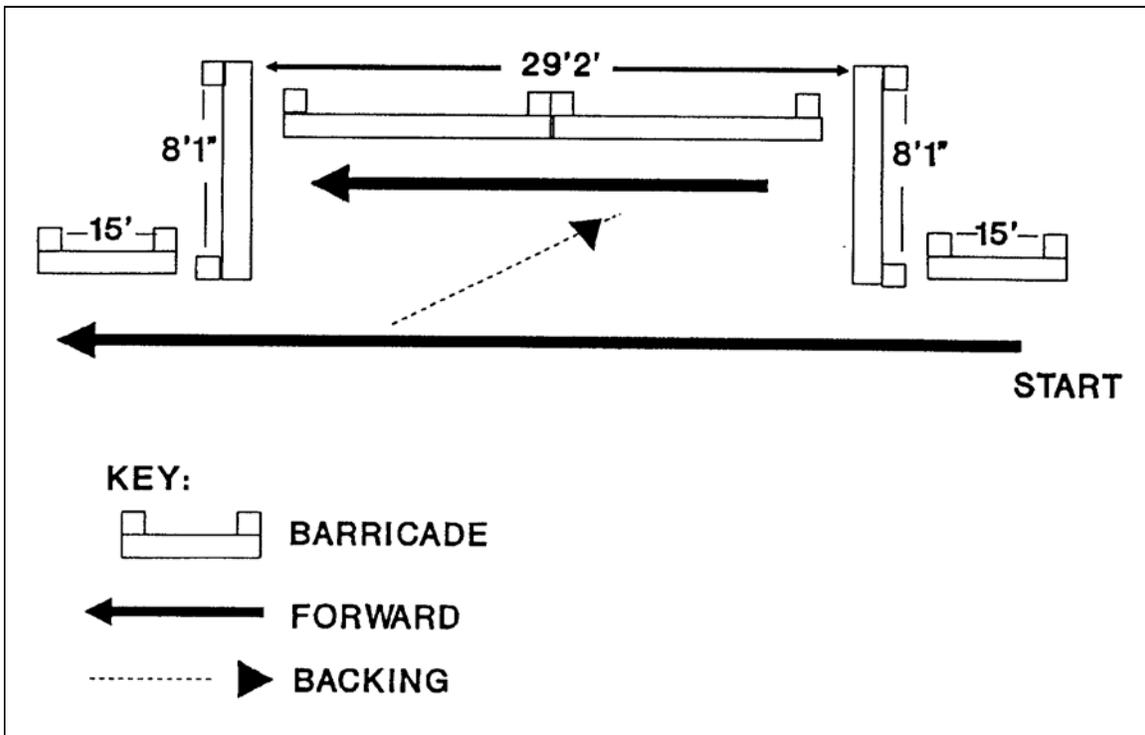


Figure 6-6. Light Vehicle Parallel Parking (Blind Side).

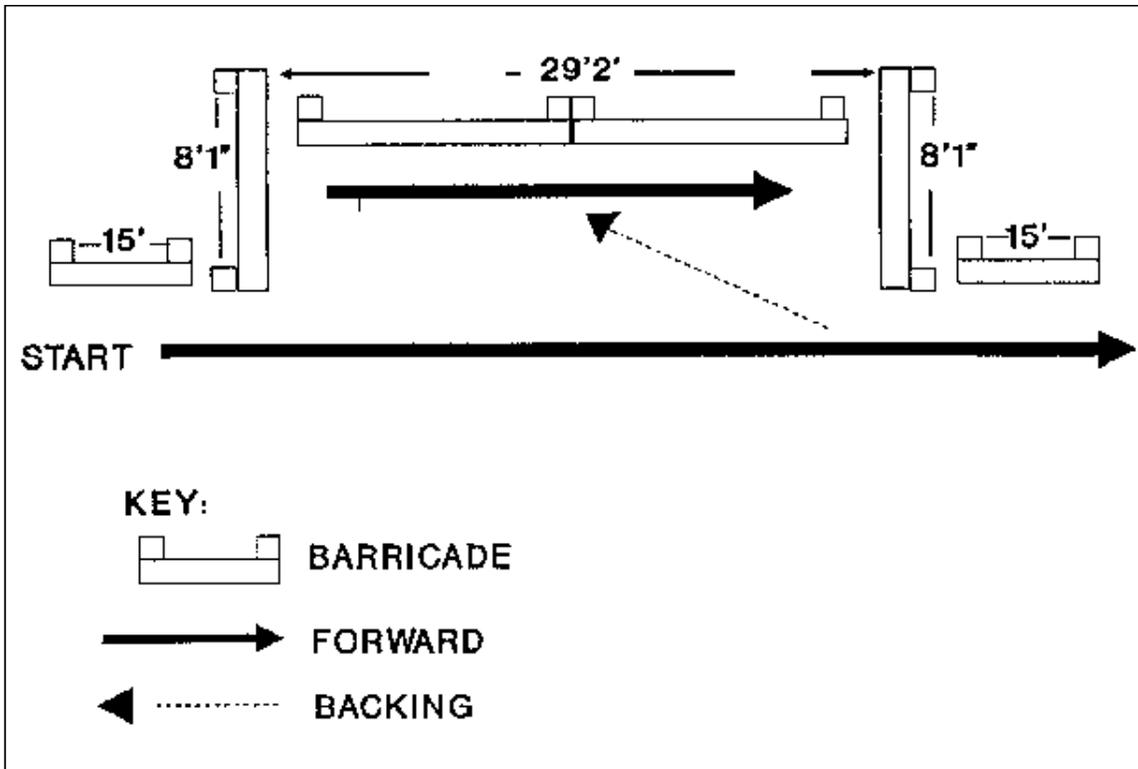


Figure 6-7. Light Vehicle Parallel Parking (Sight Side).

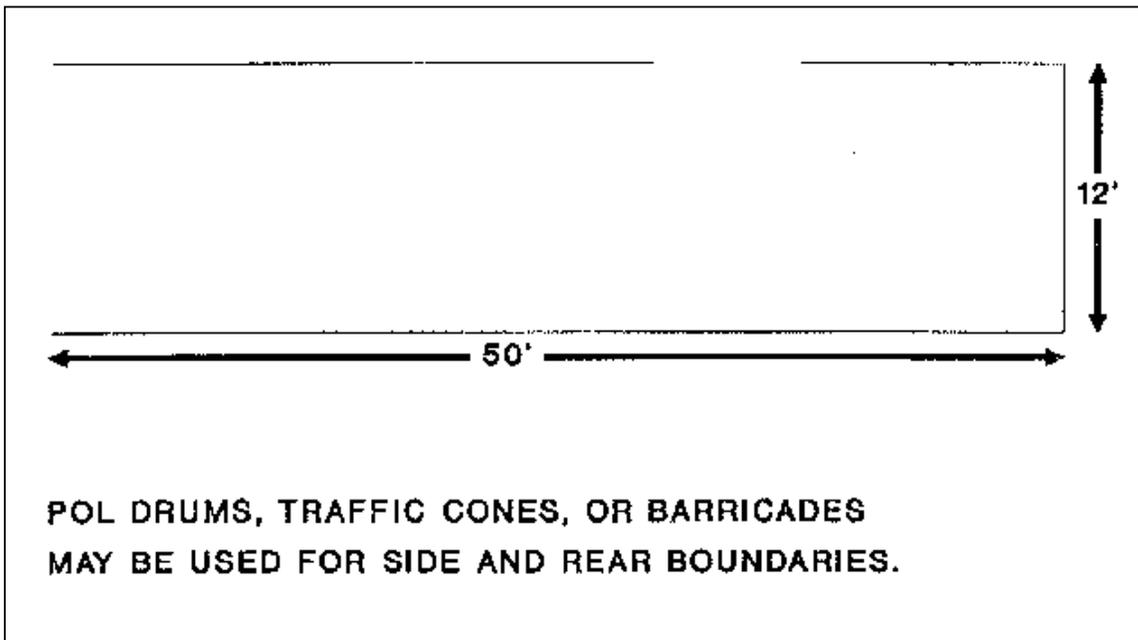


Figure 6-8. Light Vehicle Straight Line Backing.

CHAPTER 7

END OF COURSE COMPREHENSIVE TEST (EOCCT)

LESSON TITLE: END OF COURSE COMPREHENSIVE TEST (EOCCT)

TASK NUMBER: All previously taught tasks.

A. TRAINING OBJECTIVE.

TASK: Pass the end of course comprehensive test (EOCCT).

CONDITIONS: Given an examination booklet, DD Form 1970, DA Form 2404, pencil, vehicle operator's manual, equipment records folder, rags, lubricants, coolant, suitable training area, and a wheeled vehicle with BII.

STANDARD: Answer correctly 21 of 30 questions on the written examination and pass the driver's road test with a score of 70 or higher.

B. INTERMEDIATE TRAINING.

Intermediate Training Objective 1

TASK: Pass a written examination.

CONDITIONS: Given an examination booklet and a pencil.

STANDARD: Answer correctly 21 of 30 questions within 30 minutes. Use either the primary written test or the alternate written test.

Intermediate Training Objective 2

TASK: Pass the driver's road test.

CONDITIONS: Given a DD Form 1970, a DA Form 2404, a pencil, vehicle operator's manual, equipment records folder, rags, lubricants, coolant, road test route, and a wheeled vehicle with BII.

STANDARD: Achieve a score of 70 or higher. Use the driver's performance test (road test) instructions and the driver's road test checklist.

C. ADMINISTRATIVE INSTRUCTIONS.

1. Training time: As scheduled.

TC 21-305-7

2. Training location: Classroom, motor pool, road test route, and training area as scheduled.
3. Training type: Performance evaluation.
4. Students: Personnel as scheduled.
5. Principal and assistant instructors required: One primary instructor for the class for the written test and one assistant instructor for every student for the performance test.
6. Training aids and equipment: Examination booklet, DD Form 1970, DA Form 2404, pencil, vehicle operator's manual, equipment records folder, rags, lubricants, coolant, and a wheeled vehicle with BII.
7. References: DA Pamphlet 738-750, FM 21-305, and appropriate vehicle operator's manual.

D. SEQUENCE OF ACTIVITY.

1. Introduction:
 - a. Interest device.
 - b. Tie-in.
 - c. Lesson objective (paragraph A).
 - d. Procedures:
 - (1) Explanation.
 - (2) Practical exercise.
 - (3) Summary.
2. Explanation and demonstration:
 - a. Administer written examination.
 - b. Administer driver's road tests.
3. Evaluation: Check driver's road test checklists and written test results.
4. Summary:

- a. Recap main points.
 - b. Allow for questions.
 - c. Clarify questions.
 - d. Give closing statement.
5. Retraining: Retrain and retest No-Gos.

E. SAFETY RESTRICTIONS.

1. Ensure all chock blocks (if required) are in place when vehicles are parked.
2. Ensure the transmission is always placed in neutral (some automatics must be in park), the parking brake is set, the engine is shut off, and the ignition key is removed (if equipped) before leaving the vehicle.
3. Ensure students remove all jewelry and identification tags before performing PMCS.
4. Ensure students pay particular attention to the cautions and warnings listed in the operator's manual.
5. Ensure ground guide(s) is used when backing the vehicle during training (some light vehicles do not normally require ground guides).
6. Ensure a safe following distance and speed are maintained when driving on the road test route (as determined by the local command and traffic control devices).
7. Ensure all occupants wear hearing protection (if required) when working in or around a running vehicle.
8. Ensure all occupants wear seat belts (if equipped) while the vehicle is in operation.

F. ADDITIONAL COMMENTS AND INFORMATION. Recommended testing time is 4.0 hours (1.0 for the written test, 3.0 for the road test).

INTERMEDIATE TRAINING OBJECTIVE 1

WRITTEN TEST (PRIMARY)

NAME	RANK	DATE
UNIT		

Section I. True/false questions: Read each question carefully and place a T or F on the blank line to the left.

- _____ 1. When driving during periods of reduced visibility, you need to stay at least twice the normal distance from the vehicle ahead.
- _____ 2. Black ice usually occurs on bridges, beneath underpasses, in dips in the road, and in shaded areas.
- _____ 3. When braking is required for bleeding tar conditions on the roadway, ensure that at least one wheel is on a nonslippery surface.
- _____ 4. The correct driver action to take for bleeding tar conditions on the roadway is to maintain a steady speed and make no sudden steering or braking maneuvers.
- _____ 5. Skidding and jackknifing are caused by sudden changes in speed or direction.
- _____ 6. Installing tire chains on all driven wheels will increase traction when driving in snow or on ice.
- _____ 7. Engine controls start and shut down the engine.
- _____ 8. Secondary vehicle controls affect vehicle movement or power.

Section II. Multiple choice: Read each question carefully and write the answer which is **MOST** correct on the blank line to the left.

- _____ 9. When looking ahead of your vehicle while driving, you should look--
 - a. Straight ahead.
 - b. To the right side of the road.
 - c. To the left side of the road.
 - d. Back and forth, near and far.

- _____ 10. You are testing the stopping action of service brakes on a hydraulic system. Which of these can mean there is a problem?
- a. The vehicle stops in a straight line when the brake pedal is pressed.
 - b. Stopping action is normal.
 - c. The brake pedal feels spongy.
 - d. Brake pedal free travel is within tolerances.
- _____ 11. Which of these is a good rule for driving through work zones?
- a. Drive slowly and activate your four-way flashers.
 - b. Drive at the posted speed.
 - c. Slam on your brakes to get even with tailgaters.
 - d. Decrease following distance between your vehicle and the vehicle ahead.
- _____ 12. If you are being tailgated, you should--
- a. Flash your brake lights.
 - b. Speed up.
 - c. Signal the tailgater when it is safe to pass you.
 - d. Increase the space in front of your vehicle.
- _____ 13. Which of these is the proper use of vehicle lights and flashers?
- a. Flashing your headlights to warn oncoming traffic that a state police vehicle has radar in place ahead.
 - b. Flashing your brake lights to warn someone behind you of a hazard that will require slowing down.
 - c. Driving at 55 MPH with your four-way flashers on.
 - d. Activating your left turn signal to prevent drivers from passing you on the left, then making a right turn.
- _____ 14. You are driving on a straight, level highway at 50 MPH. There are no vehicles in front of you. Suddenly, a tire blows out on your vehicle. What should you do first?
- a. Stay off the brake until the vehicle slows down on its own.
 - b. Quickly steer onto the shoulder.
 - c. Begin light braking.
 - d. Begin stab braking.

- _____ 15. Which of these statements about using mirrors is true?
- a. You should look at a mirror for at least three seconds at a time.
 - b. Convex mirrors make things look farther away than they really are.
 - c. There are "blind spots" that your mirror cannot show you.
 - d. You only need to check your mirrors once for a lane change.
- _____ 16. You are driving a 2 1/2-ton cargo truck. You must exit a highway using an off ramp that curves downhill. You should--
- a. Slow down to a safe speed before the turn.
 - b. Slow to the posted speed limit for the off ramp.
 - c. Come to a full stop at the top of the ramp.
 - d. Wait until you are in the curve before downshifting.
- _____ 17. You are driving on a two-lane road. An oncoming driver drifts into your lane and is headed straight for you. Which of these is generally the best action to take?
- a. Brake hard.
 - b. Steer into the oncoming lane.
 - c. Steer onto the left shoulder.
 - d. Steer to the right.
- _____ 18. You are driving a 2 1/2-ton vehicle with a manual transmission. You have to stop the vehicle on the shoulder while driving on an uphill grade. Which of these is a good rule to follow when putting it back in motion up the grade?
- a. Keep the clutch slipping while slowly accelerating.
 - b. Use the parking brake to hold the vehicle until the clutch engages.
 - c. Let the vehicle roll straight backwards a few feet before you engage the clutch.
 - d. Let the vehicle roll backwards a few feet before you engage the clutch, but turn the wheel so that the back moves away from the roadway.
- _____ 19. Which of these is a good rule to follow when steering to avoid a crash?
- a. Apply the brakes while turning.
 - b. Steer with one hand so that you can turn the wheel more quickly.
 - c. Do not turn any more than needed to clear what is in your way.
 - d. Avoid countersteering.

- _____ 20. Some traffic emergencies may require you to leave the road. Which of these is a good thing to remember?
- If you must leave the road, try to get all wheels off the pavement.
 - Brake gently to avoid skidding.
 - Use hard braking if you are moving at a speed greater than 20 MPH.
 - Most shoulders are soft and will not support a vehicle.
- _____ 21. You should avoid driving through deep puddles or flowing water. But if you must, which of these steps can help keep your brakes working?
- Drive through quickly.
 - Apply hard pressure on both the brake pedal and accelerator while driving through the water.
 - Turn on your brake heaters.
 - After coming out of the water, continue to drive at a slow speed with enough pressure on the brake pedal to cause a drag on the brakes.
- _____ 22. You must drive on a slippery road. Which of these is a good thing to do in such a situation?
- Use a smaller following distance.
 - Apply the brakes during turns.
 - Slow down gradually.
 - Maintain the maximum posted speed limit.
- _____ 23. Which of these statements about downshifting is true?
- When you downshift for a curve, you should do so before you enter the curve.
 - When you downshift for a hill going down, you should do so before you crest the top of the hill.
 - When double clutching, you should let the RPM decrease while the clutch is disengaged and the shift lever is in neutral.
 - It is not necessary to downshift a manual transmission.
- _____ 24. When driving at night, you should--
- Look to the left side of the road when a vehicle is coming toward you.
 - Drive only up to 50 MPH with your low beams on.
 - Adjust your speed to keep your stopping distance within your sight distance.
 - Drive with your high beams on at all times.

- _____ 25. Which of these statements about backing a 2 1/2-ton cargo vehicle is true?
- a. Backing is always dangerous.
 - b. You should back and turn toward the driver's side whenever possible.
 - c. You should use ground guide(s) and communicate with hand signals.
 - d. All of the above are true.
- _____ 26. When should you wear seat belts?
- a. Any time you are in a moving vehicle.
 - b. Only in states where it is required by law.
 - c. Only when traveling on a highway.
 - d. Only when engaged in interstate commerce.
- _____ 27. How do you correct a rear wheel acceleration skid?
- a. Apply more power to the wheels.
 - b. Stop accelerating.
 - c. Apply the brake.
 - d. Downshift.
- _____ 28. The most common cause of serious vehicle skids is--
- a. Driving too fast for road conditions.
 - b. Poorly adjusted brakes.
 - c. Bad tires.
 - d. Poorly designed roads.
- _____ 29. How far should a driver look ahead of the vehicle while driving?
- a. 6 to 9 seconds.
 - b. 9 to 12 seconds.
 - c. 12 to 15 seconds.
 - d. 18 to 21 seconds.
- _____ 30. Which of these statements about overhead clearance is true?
- a. You should assume posted clearance signs are correct.
 - b. A vehicle's clearance can change with the load carried.
 - c. If the road surface causes your vehicle to tilt toward objects at the edge of the road, you should drive close to the shoulder.
 - d. Extra speed will cause air to push your vehicle down for extra clearance.

INTERMEDIATE TRAINING OBJECTIVE 1
WRITTEN TEST ANSWER SHEET (PRIMARY)

1.	T	11.	A	21.	D
2.	T	12.	D	22.	C
3.	F	13.	B	23.	A
4.	T	14.	A	24.	C
5.	T	15.	C	25.	D
6.	T	16.	A	26.	A
7.	T	17.	D	27.	B
8.	F	18.	B	28.	A
9.	D	19.	C	29.	C
10.	C	20.	B	30.	B

INTERMEDIATE TRAINING OBJECTIVE 1

WRITTEN TEST (ALTERNATE)

NAME	RANK	DATE
UNIT		

Section I. True/false questions: Read each question carefully and place a T or F on the blank line to the left.

- _____ 1. Skidding and jackknifing are caused by sudden changes in speed or direction.
- _____ 2. Installing tire chains on nondriven wheels only will increase traction when driving in snow or on ice.
- _____ 3. Engine controls start and shut down the engine.
- _____ 4. Black ice usually occurs on bridges, beneath underpasses, in dips in the road, and in shaded areas.
- _____ 5. When braking is required for bleeding tar conditions on the roadway, ensure that at least one wheel is on a nonslippery surface.
- _____ 6. Primary vehicle controls affect vehicle movement or power.
- _____ 7. When driving during periods of reduced visibility, you need to stay at least twice the normal distance from the vehicle ahead.
- _____ 8. The correct driver action to take for bleeding tar conditions on the roadway is to maintain a steady speed and make no sudden steering or braking maneuvers.

Section II. Multiple choice: Read each question carefully and write the answer which is **MOST** correct on the blank line to the left.

- _____ 9. How far should a driver look ahead of the vehicle while driving?
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 - c. 12 to 15 seconds.
 - d. 18 to 21 seconds.

- _____ 10. Which of these statements about overhead clearance is true?
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 - b. A vehicle's clearance can change with the load carried.
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 - c. Apply the brake.
 - d. Downshift.
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 - b. Poorly adjusted brakes.
 - c. Bad tires.
 - d. Poorly designed roads.
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 - c. Begin light braking.
 - d. Begin stab braking.
- _____ 14. Which of these is the proper use of vehicle lights and flashers?
- a. Flashing your headlights to warn oncoming traffic that a state police vehicle has radar in place ahead.
 - b. Flashing your brake lights to warn someone behind you of a hazard that will require slowing down.
 - c. Driving at 55 MPH with your four-way flashers on.
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 - Slam on your brakes to get even with tailgaters.
 - Decrease following distance between your vehicle and the vehicle ahead.
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 - Use the parking brake to hold the vehicle until the clutch engages.
 - Let the vehicle roll straight backwards a few feet before you engage the clutch.
 - Let the vehicle roll backwards a few feet before you engage the clutch, but turn the wheel so that the back moves away from the roadway.

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 - b. Steer into the oncoming lane.
 - c. Steer onto the left shoulder.
 - d. Steer to the right.
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- a. Slow down to a safe speed before the turn.
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- _____ 25. Which of these statements about downshifting is true?
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 - b. When you downshift for a hill going down, you should do so before you crest the top of the hill.
 - c. When double clutching, you should let the RPM decrease while the clutch is disengaged and the shift lever is in neutral.
 - d. It is not necessary to downshift a manual transmission.
- _____ 26. When driving at night, you should--
- a. Look to the left side of the road when a vehicle is coming toward you.
 - b. Drive only up to 50 MPH with your low beams on.
 - c. Adjust your speed to keep your stopping distance within your sight distance.
 - d. Drive with your high beams on at all times.

- _____ 27. Some traffic emergencies may require you to leave the road. Which of these is a good thing to remember?
- a. If you must leave the road, try to get all wheels off the pavement.
 - b. Brake gently to avoid skidding.
 - c. Use hard braking if you are moving at a speed greater than 20 MPH.
 - d. Most shoulders are soft and will not support a vehicle.
- _____ 28. Which of these is a good rule to follow when steering to avoid a crash?
- a. Apply the brakes while turning.
 - b. Steer with one hand so that you can turn the wheel more quickly.
 - c. Do not turn any more than needed to clear what is in your way.
 - d. Avoid countersteering.
- _____ 29. You must drive on a slippery road. Which of these is a good thing to do in such a situation?
- a. Use a smaller following distance.
 - b. Apply the brakes during turns.
 - c. Slow down gradually.
 - d. Maintain the maximum posted speed limit.
- _____ 30. You should avoid driving through deep puddles or flowing water. But if you must, which of these steps can help keep your brakes working?
- a. Drive through quickly.
 - b. Apply hard pressure on both the brake pedal and accelerator while driving through the water.
 - c. Turn on your brake heaters.
 - d. After coming out of the water, continue to drive at a slow speed with enough pressure on the brake pedal to cause a drag on the brakes.

INTERMEDIATE TRAINING OBJECTIVE 1
WRITTEN TEST ANSWER SHEET (ALTERNATE)

1.	T	11.	B	21.	D
2.	F	12.	A	22.	A
3.	T	13.	A	23.	D
4.	T	14.	B	24.	A
5.	F	15.	C	25.	A
6.	T	16.	D	26.	C
7.	T	17.	A	27.	B
8.	T	18.	D	28.	C
9.	C	19.	C	29.	C
10.	B	20.	B	30.	D

INTERMEDIATE TRAINING OBJECTIVE 2

DRIVER'S PERFORMANCE TEST (ROAD TEST) INSTRUCTIONS

1. GENERAL

a. The driver's performance test determines whether an individual can operate a motor vehicle properly and safely under conditions of traffic and terrain where he is expected to drive. It serves as a basis for issuing an operator's permit. Furthermore, the test provides a means for instructional reinforcement and counseling. Driving weaknesses that may show up as the result of the test can be called to the examinee's attention and specific steps can be taken to eliminate them.

b. Final evaluations are recorded on DA Form 348 or on an equivalent official form.

c. The examiner will be a qualified wheeled vehicle operator licensed on the vehicle used for testing. He will be familiar with the road test route and the testing procedures. Before administering the test to any examinees, he must practice administering the test to a regular licensed driver qualified on that type of vehicle. This practice will help him become acquainted with the test route and testing procedures.

2. TESTING METHOD

a. The specific directions for this test are to be followed without deviation. No omissions or changes in the wording of these directions are permitted.

b. The instructions, which are indented and printed in large type, are read or spoken aloud to the examinees. When giving instructions aloud, give the instructions slowly and distinctly, making sure the examinees understand. The directions in regular type, including those in parentheses, are for the information of the examiner only and are not given aloud.

3. DIRECTIONS FOR ADMINISTERING THE ROAD TEST

a. Setting Standards. The standard road test is 5 miles long, with traffic and terrain representing those areas in which the examinee is expected to drive. About 2 miles of this route is in a more congested traffic area. About 1 mile will be devoted to secondary road driving. Once a route is established (in a given locality), use it for all examinees that are to be tested. Should it prove necessary to vary the route, take care that the different kinds of route requirements, as well as the number of requirements, remain the same. Every road test will meet the following requirements (to the extent possible):

- (1) Five right turns.
- (2) Five left turns.
- (3) Two intersections.

- (4) Two traffic lights or stop signs.
- (5) Two slow zones.
- (6) One railroad crossing.
- (7) Two steep upgrades.
- (8) Two steep downgrades.
- (9) One backing area of 50 feet with a clearly marked line extending for the whole length of the 50 feet.

b. Giving Road Tests. The road test consists of a series of operations that the examinee must perform. These operations are listed on the Driver's Road Test Checklist, which must be used in giving this test. Typical operations are starting the motor, pulling out, and parking.

c. Giving Instructions. Give instructions to perform an operation well in advance of that operation to allow the driver sufficient time to conform. In giving instructions, first tell the examinee where to perform the operation and then tell him what to do. For example, "At the corner two blocks from here, turn right." Notice that the location was given in terms of landmarks. This must always be done.

CAUTION

The driver must never be urged to do something which is unsafe or which he does not want to do. Such urging may lead to an accident.

d. Preventing Accidents

- (1) Road tests should NOT normally be given if road conditions present a hazard such as ice or rain. The exception is when testing is specifically for driving under such conditions.
- (2) You must be prepared to take control of the vehicle at a moment's notice. You must always watch traffic conditions and warn the examinee of dangers, which you think he does not see. If the driver becomes involved in a dangerous or unlawful moving traffic incident or an accident, the test is to be terminated immediately and the examiner will drive the vehicle back to the start point (once on-scene responsibilities are fulfilled).

e. Beginning the Road Test

- (1) On the Driver's Road Test Checklist, enter the date in the appropriate place. Then say to the examinee--

WHAT IS YOUR NAME, LAST NAME FIRST, SPELL IT?

(2) Fill in the examinee's name after the word **NAME**, and then say--

WHAT IS YOUR RANK?

(3) Enter the individual's **RANK** after the word **RANK**, and then say--

WHAT IS YOUR ORGANIZATION?

(4) Enter the name of the organization after the word **ORGANIZATION**. Enter your name after the word **EXAMINER** (last name first). After the word **VEHICLE**, enter the model of vehicle used in the road test. Then say to the examinee--

THERE WILL BE NO "TRICK" ORDERS.

YOU WILL NOT BE ASKED TO DO ANYTHING IN VIOLATION OF THE LAW OR OF GOOD DRIVING PRACTICES.

YOUR SCORED TEST BEGINS WITH BEFORE-OPERATIONS PMCS.

(The examiner may stop the PMCS process when he is sure the examinee is knowledgeable in the PMCS procedures.)

FOLLOW MY INSTRUCTIONS. DRIVE PROPERLY AND SAFELY.

ARE THERE ANY QUESTIONS?

(5) Answer all questions except those pertaining to the scoring procedures; then say--

DURING THE TEST, I WILL MAKE SOME OBSERVATIONS AND KEEP NOTES; DO NOT BE CONCERNED. YOUR SCORED ROAD TEST STARTS NOW. ALL RIGHT, START YOUR MOTOR.

(6) Directions for each operations, such as "next block, turn left," are to be given one at a time in their proper sequence, as set up by the test route according to paragraph 3a, above.

4. SCORING THE ROAD TEST

a. Within each of the operations, which the examinee will be required to perform, there is a list of errors on the Driver's Road Test Checklist. Every time the examinee makes one of these errors under the specific operation, place a tally mark next to the error under that operation. For example, if the examinee fails to signal when leaving the curb, place a tally mark next to "fails to give proper signal" under the operation "Pulling Out" and nowhere else. The tally mark

will be placed in the space to the left of the specific error. Since an individual will be required to repeat some of the operations, such as right turns, a number of times, more than one tally mark can be placed next to the same error under a given operation. Some test routes do not lend themselves to all operations indicated on the checklist. In these cases, score only the operations that apply.

b. At the completion of the test, count the number of tally marks and subtract this number from 100 to obtain the examinee's score. Record the score in the space provided on the checklist.

c. The lowest passing score is 70. If the examinee does not achieve 70 or above, the reason for failure will be indicated in the space provided under **REMARKS**; for example, "Examinee did not obtain minimum passing score" or "Examinee exhibited undue nervousness."

d. Automatic Failures

- (1) Any unsafe driving act.
- (2) Failure to properly perform PMCS.
- (3) Not knowing location and function of gauges and controls.
- (4) Undue nervousness.
- (5) Failure to achieve minimum passing score.
- (6) If an individual scores 70 or higher on the road test and, in the opinion/judgment of the test examiner the examinee needs additional training, he has the right not to issue a license.

5. **AFTER-ACTION REVIEW (AAR).** Weakness exhibited by the examinee in the test will be brought to his attention, and he will be advised in what areas he needs further practice or training. The counseling will be accomplished whether the examinee passes or fails the road test. After the examinee has received additional training, he will be retested. An examinee that fails the road test must retake the entire road test.

INTERMEDIATE TRAINING OBJECTIVE 2

DRIVER'S ROAD TEST CHECKLIST

NAME _____ RANK _____ DATE _____ VEHICLE _____
ORGANIZATION _____ EXAMINER _____

BEFORE STARTING ENGINE

FAILS TO --

- _____ Ensure vehicle is properly dispatched
- _____ Sign DD Form 1970 and/or other forms as required.
- _____ Perform before-operations maintenance checks and services (PMCS) using appropriate -10 manual.
- _____ Unchock wheels and stow chock blocks (as required).
- _____ Adjust all mirrors.
- _____ Adjust seat.
- _____ Fasten seat belt/safety restraint.

STARTING ENGINE

FAILS TO --

- _____ Ensure proper gear selection such as neutral.
- _____ Warm engine properly.
- _____ Check to ensure all gauges are functioning properly.
- _____ Ensure there is adequate air pressure (as required).

PULLING OUT

FAILS TO --

- _____ Select proper gear.
- _____ Release parking brakes.
- _____ Look back and check traffic (use mirrors and windows).
- _____ Give proper signal.
- _____ Allow traffic to pass.
- _____ Make a smooth start.
- _____ Check all gauges periodically.
- _____ Maintain adequate air pressure (as required).
- _____ Check mirrors periodically.
- _____ Keep both hands on steering wheel (except as required by driving needs).

DRIVING IN TRAFFIC (SPEED)

FAILS TO --

- _____ Stay within the speed limits.
- _____ Reduce speed when required by road conditions.
- _____ Maintain adequate speed (drives too slow).
- _____ Maintain constant speed as much as possible (feeds gas erratically).
- _____ Maintain proper speed for gear selection.
- _____ Reduce speed when required by traffic conditions.
- _____ Check all gauges periodically.
- _____ Maintain adequate air pressure (as required).
- _____ Check mirrors periodically.
- _____ Keep both hands on steering wheel (except as required by driving needs).

DRIVING IN TRAFFIC (ATTENTION, ATTITUDE)

FAILS TO --

- _____ Stay in proper lane.
- _____ Maintain proper following distance from vehicle ahead in traffic (twice the speedometer reading in feet).
- _____ Maintain proper following distance at high speeds (40 mph or over) from vehicle ahead on open highways (two times the speedometer reading in yards).
- _____ Anticipate action of other drivers and pedestrians.
- _____ Observe and obey signs, signals, and/or police officers.
- _____ Give necessary warning (sound horn).
- _____ Yield right-of-way to other vehicles.
- _____ Yield right-of-way to pedestrians.
- _____ Be courteous toward other drivers.
- _____ Slow down when approaching railroad grade crossings.
- _____ Stop, look, and listen both ways before entering railroad grade crossings (**HAZMAT** only).
- _____ Prevent creeping or drifting when stopped.
- _____ Perform during-operations maintenance.
- _____ Check all gauges periodically.
- _____ Check mirrors periodically.
- _____ Maintain adequate air pressure (as required).
- _____ Keep both hands on steering wheel (except as required by driving needs).

LEFT TURN

FAILS TO --

- _____ Give proper signal in advance.
- _____ Turn from proper lane (usually adjacent to centerline).
- _____ Turn into proper lane (usually immediately to the right of the centerline).
- _____ Avoid cutting corners.

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- _____ Maintain safe speed.
- _____ Straighten out properly.
- _____ Check mirrors periodically (for traffic and off tracking).
- _____ Maintain adequate air pressure (as required).
- _____ Keep both hands on steering wheel (except as required by driving needs).

RIGHT TURN

FAILS TO --

- _____ Give proper signal in advance.
- _____ Turn from proper lane (usually the right lane).
- _____ Turn into proper lane (usually the right lane).
- _____ Avoid swinging too wide.
- _____ Maintain safe speed.
- _____ Avoid cutting corners.
- _____ Straighten out properly.
- _____ Check mirrors periodically (for traffic and off tracking).
- _____ Maintain adequate air pressure (as required).
- _____ Keep both hands on steering wheel (except as required by driving needs).

USE OF CONTROLS

FAILS TO --

- _____ Use proper shifting patterns (upshifting and downshifting).
- _____ Avoid racing engine.
- _____ Start on hill without rolling back.
- _____ Keep both hands on steering wheel (except as required by driving needs).
- _____ Check all gauges periodically.
- _____ Maintain constant engine speed.

SLOWING OR STOPPING

FAILS TO --

- _____ Signal intent in advance.
- _____ Observe traffic to the rear, using mirrors and windows.
- _____ Brake smoothly.
- _____ Use engine as a brake by downshifting the transmission (manual transmissions only).
- _____ Maintain adequate air pressure (as required).
- _____ Keep both hands on steering wheel (except as required by driving needs).

OVERTAKING AND PASSING

FAILS TO --

- _____ Check for other traffic (use mirrors and windows).
- _____ Signal in advance.
- _____ Maintain proper following distance before passing.
- _____ Pass in proper lane.

- _____ Change lane gradually in passing.
- _____ Return to proper lane only after signaling intent and ensuring that lane is clear.
- _____ Obey "no passing" signs, rules, or regulations (such as hills, curves, and intersections).
- _____ Check mirrors periodically.
- _____ Maintain adequate air pressure (as required).
- _____ Check all gauges periodically.
- _____ Keep both hands on steering wheel (except as required by driving needs).

BACKING

FAILS TO --

- _____ Look behind vehicle before backing.
- _____ Sound horn.
- _____ Back slowly.
- _____ Back smoothly.
- _____ Back in a straight line using mirrors and ground guide (50 feet within 6 inches of line laterally).
- _____ Maintain adequate air pressure (as required).
- _____ Keep both hands on steering wheel (except as required by driving needs).

PARKING

FAILS TO --

- _____ Check for other traffic.
- _____ Give proper signal for traffic to pass.
- _____ Park within two attempts.
- _____ Park without bumping or scraping curb.
- _____ Park in space 3 feet wider than test vehicle (parallel parking).
- _____ Set parking brakes.
- _____ Chock wheels.
- _____ Maintain adequate air pressure (as required).
- _____ Perform after-operation PMCS.
- _____ Keep both hands on steering wheel (except as required by driving needs).

ROAD TEST SCORE

100

NUMBER OF TALLY MARKS (SUBTRACT)

ROAD TEST SCORE

REMARKS:

APPENDIX**GROUND GUIDE SAFETY PROCEDURES**

1. Keep 10 yards between ground guides and vehicles.
2. Ground guides are required when vehicles enter bivouac areas. The best method to guide a vehicle at night into a bivouac area is to stop the vehicle, move forward to be sure the way is clear, then signal the vehicle to move forward using a filtered flashlight. As the vehicle advances forward, repeat the process. Use the same procedure during daylight using hand signals.
3. Backing wheeled vehicles will normally require one ground guide; however, two guides will be used when visibility is restricted due to cargo, darkness, and so forth. Guides must be able to see each other, and one must be visible to the driver. If the driver loses sight of the ground guide, he must stop the vehicle immediately.
4. Before moving a wheeled vehicle in an assembly area, such as a motor pool or bivouac area, the driver or ground guide must walk completely around the vehicle and inspect under the vehicle and its path to ensure that no person or object may be harmed by the vehicle's movement.
5. Hand signals are the basic method used for ground guiding. Voice signals between a ground guide and driver can be misunderstood.
6. The following are ground guide basic rules:
 - a. Give signals to only one person. Be sure that everyone involved in a move (the driver and ground guide[s]) understands who will give the signal, who will relay the signal, and who will receive it. Be sure everyone involved clearly understands all signals, especially the signal to stop!
 - b. Remain out of the vehicle's path of travel.
 - c. If you must be in the path of travel, maintain a distance of at least 10 yards.
 - d. If you are guiding a vehicle into a close position and cannot maintain a 10-yard forward distance--
 - (1) Keep to the side and front (or rear) of the vehicle.
 - (2) Get on top of the object you are approaching, such as another vehicle or dock.
 - (3) Stay in the driver's line of sight.
 - e. When guiding a vehicle long distances, your best position is forward and to the left of the vehicle.

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f. Never walk backwards to guide a vehicle. Instead, locate yourself 10 to 20 yards behind the vehicle and face the vehicle and ground guide located in front of the vehicle. Once the vehicle backs to your initial location then halt the vehicle, turn around and walk forward another 10 to 20 yards. Turn around, face the vehicle and front ground guide, and continue guiding the vehicle in this manner until the vehicle is in position.

GLOSSARY

AAR	after-action review
AFV	accidentfax video
AR	Army regulation
BII	basic issue items
bldg	building
bn	battalion
co	company
D	drive
DA	Department of the Army
DD	Department of Defense
EOCCT	end of course comprehensive test
F	Fahrenheit or false
FM	field manual
GVWR	gross vehicle weight rating
HAZMAT	hazardous material
HMMWV	high mobility multipurpose wheeled vehicle
K	kilometers
LO	lubrication order
M	miles
MP	military police
MPH	miles per hour
N	neutral
NA	not applicable
NCOIC	noncommissioned officer in charge
NMC	not mission capable
no	number
NSN	national stock number
P	park
PA	public address
PIN	production identification number
PMCS	preventive maintenance checks and services
POL	petroleum, oils, and lubricants
R	reverse
RPM	revolutions per minute
SF	standard form
SOP	standard operating procedure
SPC	specialist
SSG	staff sergeant
T	true
TA	training area
TC	training circular
TM	technical manual
TVT	television videotape
US	United States

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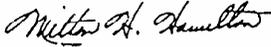
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16 SEPTEMBER 1992

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